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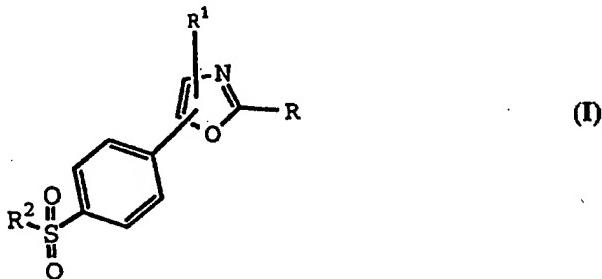
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(54) Title: SUBSTITUTED OXAZOLYL COMPOUNDS FOR THE TREATMENT OF INFLAMMATION

(57) Abstract

A class of substituted oxazolyl compounds is described for use in treating inflammation and inflammation-related disorders. Compounds of particular interest are defined by formula (I) wherein R is selected from alkyl, hydroxyalkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl optionally substituted at a substitutable position by carboxy, alkyl, alkoxy and halo, aralkyl optionally substituted at a substitutable position on the aryl radical by carboxy, alkyl, alkoxy and halo, aryloxyalkyl optionally substituted at a substitutable position on the aryl radical with halo, carboxy, alkyl and alkoxy, aralkoxyalkyl optionally substituted at a substitutable position by alkyl, carboxy, alkoxy and halo, heteroaryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, alkyl and alkoxy, alkoxy carbonylalkyl, carboxyalkyl and aminocarbonylalkyl; wherein R¹ is selected from cycloalkyl, cycloalkenyl, heteroaryl and aryl optionally substituted at a substitutable position by alkyl, alkoxy and halo, and wherein R² is alkyl; or a pharmaceutically-acceptable salt thereof; provided R¹ is not phenyl when R² is methyl and R is isopropyl or tert-butyl.



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SUBSTITUTED OXAZOLYL COMPOUNDS FOR THE
TREATMENT OF INFLAMMATION

FIELD OF THE INVENTION

5 This invention is in the field of anti-inflammation pharmaceutical agents and specifically relates to compounds, compositions and methods for treating inflammation and inflammation-associated disorders, such as
10 arthritis.

BACKGROUND OF THE INVENTION

Prostaglandins play a major role in the
15 inflammation process and the inhibition of prostaglandin production, especially production of PGG₂, PGH₂ and PGE₂, has been a common target of antiinflammatory drug discovery. However, common non-steroidal antiinflammatory drugs (NSAIDs) that are active in reducing the
20 prostaglandin-induced pain and swelling associated with the inflammation process are also active in affecting other prostaglandin-regulated processes not associated with the inflammation process. Thus, use of high doses of most common NSAIDs can produce severe side effects, including
25 life threatening ulcers, that limit their therapeutic potential. An alternative to NSAIDs is the use of corticosteroids, which have even more drastic side effects, especially when long term therapy is involved.

30 Previous NSAIDs have been found to prevent the production of prostaglandins by inhibiting enzymes in the human arachidonic acid/prostaglandin pathway, including the enzyme cyclooxygenase (COX). Recently, the sequence of another heretofore unknown enzyme in the human arachidonic acid/prostaglandin pathway has been reported by T. Hla and K. Nielson, Proc. Natl. Acad. Sci. USA, 89, 7384 (1992) and named "cyclooxygenase II (COX II)" or "prostaglandin G/H synthase II". The discovery of an inducible enzyme

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25 life threatening ulcers, that limit their therapeutic potential. An alternative to NSAIDs is the use of corticosteroids, which have even more drastic side effects, especially when long term therapy is involved.

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associated with inflammation provides a viable target of inhibition which more effectively reduces inflammation and produces fewer and less drastic side effects.

Cyclooxygenase II is inducible by cytokines or endotoxins
5 and such induction is inhibited by glucocorticoids (J.
Masferrer, et al, *Proc. Natl. Acad. Sci., USA*, **89**, 3917
(1992)). The 6-methoxy-2-naphthalacetic acid metabolite of
nabumetone has been found by E. Meade et al to selectively
inhibit the COX II enzyme (*J. Biol. Chem.*, **268**, 6610
10 (1993)). In addition, Futaki et al (*Prostaglandins*, **47**, 1
(1994)) have reported that N-(2-cyclohexyloxy-4-
nitrophenyl)methanesulfonamide inhibits the COX II enzyme.

The references below that disclose antiinflammatory
15 activity, show continuing efforts to find a safe and
effective antiinflammatory agent. The novel oxazoles
disclosed herein are such safe and also effective
antiinflammatory agents furthering such efforts. The
invention compounds are found to show usefulness in vivo as
20 antiinflammatory agents with minimal side effects. The
substituted oxazolyl compounds disclosed herein preferably
selectively inhibit cyclooxygenase II over cyclooxygenase I.

2,3-Diaryl-5-halo thiophenes are described
25 in U.S. Patent No. 4,590,205 as analgesic or
antiinflammatory agents. More particularly, 2,3-
diaryl-5-bromo thiophenes are described in U.S.
Patent No. 4,820,827 as having antiinflammatory and
prostaglandin synthetase inhibitory activity for use
30 in the treatment of inflammation and dysmenorrhea.
Copending application Serial No. PCT/US94/466
describes 4,5-substituted phenylthiophenes as having
antiinflammatory activity.

35 Pyrazole derivatives having
antiinflammatory activity are described in U.S.
Patent No. 5, 134,142, to Matsuo et al.

U.S. Patent No. 3,578,671, to K. Brown, describes antiinflammatory 4,5-diphenyloxazoles substituted in the 2-position by a saturated or 5 unsaturated aliphatic acid. U.S. Patent No. 4,051,250, to J. Dahm et al, describes oxazole, imidazole and thiazole compounds, including 2- mercapto-4-(4-methylmercaptophenyl)-5-(4-chlorophenyl)oxazole, as having antiphlogistic, analgesic and antipyretic activity. Other related 10 diphenyloxazole disclosures include U.S. Patent No. 4,001,228, to G. Mattalia, for antiaggregating activity and U.S. Patent No. 3,895,024, to R. Hafeli, for intermediates in the production of 15 antiinflammatory agents. U. S. Patent No. 4,489,084, to F. Haviv and F. Kerdesky, describes diphenyloxazolyl hydrazinoalkyl nitrile compounds for use as antiinflammatory agents. U.S. Patent No. 4,143,047, to R. Harrison, describes oxazole 20 compounds as reactants to make 2-acylamino oxazole derivatives having anti-allergy activity.

U.S. Patent No. 4,791,124, to Lutomski et al, describes the pesticide activity of substituted 25 bis(4-halophenyl)oxazoles. U.S. Patent No. 4,775,687, to Meguro et al describes the possible use of 4,5-phenyl oxazoles as starting materials for antidiabetic compounds. WO publication No. 517,591, published December 9, 1992, describes 30 bis(halophenyl)oxazole derivatives as starting materials for the preparation of antiinflammatory agents.

N. Meanwell et al [J.Med.Chem., 35, 3498 35 (1992)] describe bis(substitutedphenyl)oxazoles as having ADP-induced platelet aggregation inhibition activity.

U.S. Patent No. 4,812,470, to N. Rogers et al, describes phenyl substituted oxazoles as having antibacterial activity.

5

U.S. Patent No. 3,901,908, to K. Fitzi and R. Pfister, describes 2-alkyl and 2-cycloalkyl-4,5-phenyloxazoles as intermediates in the synthesis of imidazoles having analgesic and antipyretic activity. 10 Specifically, 2-tert-butyl-4-(4-methylsulfonylphenyl)-5-phenyloxazole is described.

U.S. Patent No. 4,632,930, to Carini et al, describes antihypertensive alkyl and aryl substituted imidazole, thiazole and oxazole derivatives. 15 Specifically, 5-phenyl-4-(4-methylsulfonylphenyl)- α,α -bis(trifluoromethyl)thiazole-2-methanol is described.

20

R. Cremylin et al describe the synthesis of heterocyclic sulfonyl derivatives and specifically, 4',4"--(2-methyl-4,5-oxazoldiyi)-bis-benzenesulfonamide (*J. Heterocycl. Chem.*, 22, 1211 (1985)).

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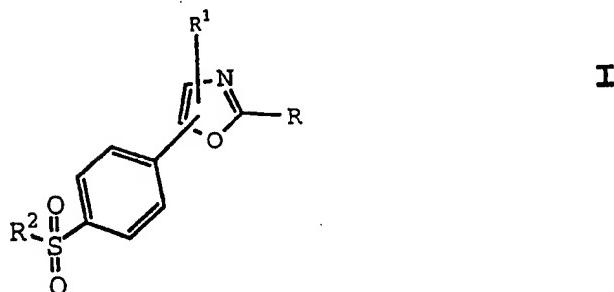
T. van Es and O.G. Backeberg [*J. Chem. Soc.*, 1363 (1963)] describe the synthesis of 2-methyl-4,5-substitutedphenyloxazoles, and specifically, 4-[5-(4-chlorophenyl)-2-methyl-4-oxazoly]benzenesulfonamide.

30

DESCRIPTION OF THE INVENTION

A class of substituted oxazolyl compounds useful in treating inflammation-related disorders is defined by

5 Formula I:



wherein R is selected from hydrido, alkyl,
 10 hydroxyalkyl, haloalkyl, alkenyl, hydroxyalkenyl,
 alkynyl, hydroxyalkynyl, cycloalkyl, cycloalkylalkyl,
 aryl optionally substituted at a substitutable
 position by carboxy, alkyl, alkoxy and halo,
 heteroaryl optionally substituted at a substitutable
 15 position by carboxy, alkyl, alkoxy and halo, aralkyl
 optionally substituted at a substitutable position on
 the aryl radical by carboxy, alkyl, alkoxy and halo,
 aryloxyalkyl optionally substituted at a
 substitutable position with halo, carboxy, alkyl and
 20 alkoxy, aralkoxyalkyl optionally substituted at a
 substitutable position with halo, carboxy, alkyl and
 alkoxy, heteroaryloxyalkyl optionally substituted at
 a substitutable position with halo, carboxy, alkyl
 and alkoxy, alkoxycarbonyl, alkoxy carbonylalkyl,
 25 carboxy, carboxyalkyl, arylthioalkyl,
 aminocarbonylalkyl, N-alkylaminocarbonylalkyl and
 N,N-dialkylaminocarbonylalkyl;
 wherein R¹ is selected from cycloalkyl,
 cycloalkenyl, aryl and heteroaryl, wherein R¹ is
 30 optionally substituted at a substitutable position by
 alkyl, alkoxy and halo; and

wherein R² is selected from alkyl, haloalkyl and amino; or a pharmaceutically-acceptable salt thereof; provided R is not methyl when R² is amino; and further provided that R¹ is not phenyl when R² is methyl and R is isopropyl or tert-butyl.

The phrase "further provided", as used in the above description, is intended to mean that the 10 denoted proviso is not to be considered conjunctive with the other provisos.

Compounds of Formula I would be useful for, but not limited to, the treatment of inflammation in a subject, 15 and for treatment of other inflammation-associated disorders, such as, as an analgesic in the treatment of pain and headaches, or as an antipyretic for the treatment of fever. For example, compounds of Formula I would be useful to treat arthritis, including but not limited to 20 rheumatoid arthritis, spondyloarthropathies, gouty arthritis, osteoarthritis, systemic lupus erythematosus and juvenile arthritis. Such compounds of Formula I would be useful in the treatment of asthma, bronchitis, menstrual cramps, tendinitis, bursitis, and skin related conditions 25 such as psoriasis, eczema, burns and dermatitis. Compounds of Formula I also would be useful to treat gastrointestinal conditions such as inflammatory bowel syndrome, Crohn's disease, gastritis, irritable bowel syndrome and ulcerative colitis and for the prevention of colorectal cancer. 30 Compounds of Formula I would be useful in treating inflammation in such diseases as vascular diseases, migraine headaches, periarteritis nodosa, thyroiditis, aplastic anemia, Hodgkin's disease, sclerodoma, rheumatic fever, type I diabetes, myasthenia gravis, sarcoidosis, 35 nephrotic syndrome, Behcet's syndrome, polymyositis, gingivitis, hypersensitivity, conjunctivitis, swelling occurring after injury, myocardial ischemia, and the like.

The compounds are useful as anti-inflammatory agents, such as for the treatment of arthritis, with the additional benefit of having significantly less harmful side effects.

5 Preferably, the compounds have a cyclooxygenase II IC₅₀ of less than about 0.1 μM, and also have a selectivity ratio of cyclooxygenase II inhibition over cyclooxygenase I inhibition of at least 50, and more preferably of at least 100. Even more preferably, the 10 compounds have a cyclooxygenase I IC₅₀ of greater than about 0.5 μM, and more preferably of greater than 5 μM. Such preferred selectivity may indicate an ability to reduce the incidence of common NSAID-induced side effects.

15 A preferred class of compounds consists of those compounds of Formula I wherein R is selected from hydrido, lower alkyl, lower hydroxyalkyl, lower haloalkyl, lower alkenyl, lower hydroxyalkenyl, lower alkynyl, lower hydroxyalkynyl, lower cycloalkyl, lower cycloalkylalkyl, aryl selected from phenyl and naphthyl, optionally substituted at a substitutable position by halo, carboxy, lower alkyl and lower alkoxy, heteroaryl selected from pyridyl, thienyl, thiazolyl, oxazolyl, imidazolyl, furyl and quinolyl, 20 optionally substituted at a substitutable position by halo, carboxy, lower alkyl and lower alkoxy, lower aralkyl optionally substituted at a substitutable position on the aryl radical by halo, carboxy, lower alkyl and lower alkoxy, lower aryloxyalkyl optionally 25 substituted at a substitutable position by halo, carboxy, lower alkyl and lower alkoxy, lower heteroaryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, lower alkyl and lower alkoxy, lower aralkoxyalkyl 30 substituted at a substitutable position with halo, carboxy, lower alkyl and lower alkoxy, lower heteroaryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, lower alkyl and lower alkoxy, lower aralkoxyalkyl 35 optionally substituted at a substitutable position with halo, carboxy, lower alkyl and lower alkoxy, carboxy, lower alkoxycarbonyl, lower

alkoxycarbonylalkyl, lower carboxyalkyl, lower arylthioalkyl, lower aminocarbonylalkyl, lower N-alkylaminocarbonylalkyl and lower N,N-dialkylaminocarbonylalkyl;

5 wherein R¹ is selected from lower cycloalkyl, lower cycloalkenyl, phenyl, naphthyl and heteroaryl selected from pyridyl, thienyl, thiazolyl, oxazolyl, imidazolyl, furyl, quinolyl, 3,4-methylenedioxyphenyl, indolyl, benzothiazolyl, 2,3-thianaphthalenyl, 2,3-dihydrothianaphthalenyl, 2,3-benzofuryl, and 2,3-dihydrobenzofuryl, wherein R¹ is 10 optionally substituted at a substitutable position by lower alkyl, lower alkoxy and halo; and
wherein R² is selected from lower alkyl,
15 lower haloalkyl and amino.

A class of compounds of particular interest consists of those compounds of Formula I wherein R is selected from hydrido, methyl, ethyl, n-propyl, 20 isopropyl, butyl, tert-butyl, isobutyl, hydroxymethyl, fluoromethyl, difluoromethyl, trifluoromethyl, chloromethyl, dichloromethyl, trichloromethyl, pentafluoroethyl, heptafluoropropyl, difluorochloromethyl, dichlorofluoromethyl, 25 difluoroethyl, difluoropropyl, dichloroethyl, dichloropropyl, ethenyl, 1-propenyl, 2-propenyl, 1-butenyl, 2-butenyl, 3-butenyl, hydroxyethenyl, ethynyl, 1-propynyl, 2-propynyl, 1-butynyl, 2-butynyl, 3-butynyl, hydroxyethynyl, cyclobutyl, 30 cyclopentyl, cyclohexyl, cycloheptyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, cyclohexylethyl, cyclohexylpropyl, cycloheptylmethyl, phenyl and naphthyl, optionally substituted at a substitutable position by fluoro, 35 chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, pyridyl,

thienyl, thiazolyl, oxazolyl, imidazolyl, furyl and quinolyl, optionally substituted at a substitutable position by fluoro, chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, benzyl, phenethyl, diphenylmethyl and phenpropyl, 5 optionally substituted at a substitutable position on the phenyl radical by fluoro, chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, phenoxymethyl optionally substituted at a substitutable position on the phenyl radical with fluoro, chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, 10 methoxy, ethoxy, propoxy and butoxy, benzyloxymethyl optionally substituted at a substitutable position on the phenyl radical with fluoro, chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, pyridyloxymethyl and quinolyloxymethyl, 15 20 optionally substituted at a substitutable position with fluoro, chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, methoxycarbonyl, ethoxycarbonyl, propoxycarbonyl, 25 butoxycarbonyl, methoxycarbonylmethyl, ethoxycarbonylmethyl, methoxycarbonylethyl, ethoxycarbonylethyl, carboxy, acetyl, propanoic, butanoic, pentanoic, hexanoic, phenylthiomethyl, 30 aminocarbonylmethyl, N-methylaminocarbonylmethyl and N,N-dimethylaminocarbonylmethyl; wherein R¹ is selected from cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, 1-cyclohexenyl, 2-cyclohexenyl, 3-cyclohexenyl, cyclopentenyl, 35 cycloheptenyl, phenyl, naphthyl, pyridyl, thienyl, thiazolyl, oxazolyl, imidazolyl, furyl, quinolyl, benzothiazolyl, 2,3-thianaphthalenyl, 2,3-

dihydrothianaphthalenyl, 2,3-benzofuryl, and 2,3-dihydrobenzofuryl, wherein R¹ is optionally substituted at a substitutable position by methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, 5 isobutyl, methoxy, ethoxy, propoxy, butoxy, fluoro, chloro, bromo and iodo; and

wherein R² is selected from methyl, ethyl, trifluoromethyl, difluoromethyl, fluoromethyl and amino.

10

A family of specific compounds of particular interest within Formula I consists of compounds and pharmaceutically-acceptable salts thereof as follows:

- 15 4-[2-benzyl-5-(phenyl)oxazol-4-yl]benzenesulfonamide;
4-[2-benzyl-5-(2-fluorophenyl)oxazol-4-yl]benzenesulfonamide;
4-[2-benzyl-5-(3-fluorophenyl)oxazol-4-
20 yl]benzenesulfonamide;
4-[2-benzyl-5-(4-fluorophenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2,4-difluorophenyl)oxazol-4-
25 yl]benzenesulfonamide;
4-[2-benzyl-5-(2,5-difluorophenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2,6-difluorophenyl)oxazol-4-
30 yl]benzenesulfonamide;
4-[2-benzyl-5-(3,4-difluorophenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(3,5-difluorophenyl)oxazol-4-
35 yl]benzenesulfonamide;
4-[2-benzyl-5-(2-chlorophenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(3-chlorophenyl)oxazol-4-
yl]benzenesulfonamide;

- 4-[2-benzyl-5-(4-chlorophenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2,4-dichlorophenyl)oxazol-4-
yl]benzenesulfonamide;
5 4-[2-benzyl-5-(2,5-dichlorophenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2,6-dichlorophenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(3,4-dichlorophenyl)oxazol-4-
10 yl]benzenesulfonamide;
4-[2-benzyl-5-(3,5-dichlorophenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2-methoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
15 4-[2-benzyl-5-(3-methoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(4-methoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2,4-dimethoxyphenyl)oxazol-4-
20 yl]benzenesulfonamide;
4-[2-benzyl-5-(2,5-dimethoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2,6-dimethoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
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yl]benzenesulfonamide;
4-[2-benzyl-5-(3,5-dimethoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2-methylphenyl)oxazol-4-
30 yl]benzenesulfonamide;
4-[2-benzyl-5-(3-methylphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(4-methylphenyl)oxazol-4-
yl]benzenesulfonamide;
35 4-[2-benzyl-5-(2,4-dimethylphenyl)oxazol-4-
yl]benzenesulfonamide;

- 4-[2-benzyl-5-(2,5-dimethylphenyl)oxazol-4-
yl]benzenesulfonamide;
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4-[2-benzyl-5-(3,5-dimethylphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2-chloro-4-methylphenyl)oxazol-4-
10 yl]benzenesulfonamide;
4-[2-benzyl-5-(3-chloro-4-methylphenyl)oxazol-4-
yl]benzenesulfonamide;
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4-[2-benzyl-5-(4-chloro-3-methoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(3,5-dichloro-4-methoxyphenyl)oxazol-
4-yl]benzenesulfonamide;
35 4-[2-benzyl-5-(2-fluoro-4-methylphenyl)oxazol-4-
yl]benzenesulfonamide;

- 4-[2-benzyl-5-(3-fluoro-4-methylphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3-fluoro-2-methylphenyl)oxazol-4-
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5 4-[2-benzyl-5-(2-fluoro-6-methylphenyl)oxazol-4-
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4-[2-benzyl-5-(4-fluoro-2-methylphenyl)oxazol-4-
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15 4-[2-benzyl-5-(3-fluoro-2-methoxyphenyl)oxazol-4-
y1]benzenesulfonamide;
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y1]benzenesulfonamide;
4-[2-benzyl-5-(4-fluoro-2-methoxyphenyl)oxazol-4-
20 y1]benzenesulfonamide;
4-[2-benzyl-5-(2-thienyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(5-chloro-2-thienyl)oxazol-4-
y1]benzenesulfonamide;
25 4-[2-benzyl-5-(cyclohexyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(1-cyclohexenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(2-cyclohexenyl)oxazol-4-
30 y1]benzenesulfonamide;
4-[2-benzyl-5-(3-cyclohexenyl)oxazol-4-
y1]benzenesulfonamide;
2-benzyl-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-
35 fluorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-
fluorophenyl)oxazole;

- 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,4-difluorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,5-difluorophenyl)oxazole;
- 5 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,6-difluorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,4-difluorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,5-difluorophenyl)oxazole;
- 10 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-chlorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-chlorophenyl)oxazole;
- 15 2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-chlorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,4-dichlorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,5-dichlorophenyl)oxazole;
- 20 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,6-dichlorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,4-dichlorophenyl)oxazole;
- 25 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,5-dichlorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-methoxyphenyl)oxazole;
- 30 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-methoxyphenyl)oxazole;
- 35 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,4-dimethoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,5-dimethoxyphenyl)oxazole;

- 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,6-dimethoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,4-dimethoxyphenyl)oxazole;
5 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,5-dimethoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-methylphenyl)oxazole;
10 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,4-dimethylphenyl)oxazole;
15 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,5-dimethylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2,6-dimethylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,4-dimethylphenyl)oxazole;
20 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,5-dimethylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-chloro-4-methylphenyl)oxazole;
25 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-chloro-4-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-chloro-2-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-chloro-6-methylphenyl)oxazole;
30 2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-chloro-2-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-chloro-3-methylphenyl)oxazole;
35 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-chloro-4-methoxyphenyl)oxazole;

- 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-chloro-4-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-chloro-2-methoxyphenyl)oxazole;
5 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-chloro-6-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-chloro-2-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-chloro-3-methoxyphenyl)oxazole;
10 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,5-dichloro-4-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-fluoro-4-methylphenyl)oxazole;
15 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-fluoro-4-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-fluoro-2-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-fluoro-6-methylphenyl)oxazole;
20 2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-fluoro-2-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-fluoro-3-methylphenyl)oxazole;
25 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-fluoro-4-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-fluoro-4-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-fluoro-2-methoxyphenyl)oxazole;
30 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-fluoro-6-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-fluoro-2-methoxyphenyl)oxazole;
35 2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-thienyl)oxazole;

- 2-benzyl-4-(4-methylsulfonylphenyl)-5-(5-chloro-2-thienyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(cyclohexyl)oxazole-;
5 2-benzyl-4-(4-methylsulfonylphenyl)-5-(1-cyclohexenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-cyclohexenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-cyclohexenyl)oxazole;
10 2-(ethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(trifluoromethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
15 2-(difluoromethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(hydroxymethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(carboxy)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
20 2-(methoxycarbonyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(ethoxycarbonyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
25 2-(propyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(benzyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(phenylthiomethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
30 2-(phenoxyethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-((4-chlorophenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
35 2-((3-chlorophenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;

- 2-((2-chlorophenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-((4-fluorophenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
5 2-((3-fluorophenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-((2-fluorophenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-((4-carboxyphenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
10 2-((3-carboxyphenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-((2-carboxyphenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
15 2-(2-phenethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(3-phenpropyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(carboxymethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
20 2-(ethoxycarbonylmethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(methoxycarbonylmethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
25 2-(2-carboxyethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(2-methoxycarbonylethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(2-ethoxycarbonylethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
30 2-(3-carboxypropyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(3-methoxycarbonylpropyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
35 2-(3-ethoxycarbonylpropyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;

2-(2-quiniolyloxymethyl)-4-(4-methylsulfonylphenyl)-
5-phenyloxazole;
4-[2-(ethyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(trifluoromethyl)-5-phenyloxazol-4-
5 yl]benzenesulfonamide;
4-[2-(difluoromethyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-(hydroxymethyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
10 4-[2-(carboxy)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-(methoxycarbonyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-(ethoxycarbonyl)-5-phenyloxazol-4-
15 yl]benzenesulfonamide;
4-[2-(propyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-(benzyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
20 4-[2-(phenylthiomethyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-(phenoxyethyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-((4-chlorophenoxy)methyl)-5-phenyloxazol-4-
25 yl]benzenesulfonamide;
4-[2-((3-chlorophenoxy)methyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-((2-chlorophenoxy)methyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
30 4-[2-((4-fluorophenoxy)methyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-((3-fluorophenoxy)methyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;
4-[2-((2-fluorophenoxy)methyl)-5-phenyloxazol-4-
35 yl]benzenesulfonamide;
4-[2-((4-carboxyphenoxy)methyl)-5-phenyloxazol-4-
 yl]benzenesulfonamide;

- 4-[2-((3-carboxyphenoxy)methyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-((2-carboxyphenoxy)methyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
5 4-[2-(2-phenylethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(3-phenylpropyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(carboxymethyl)-5-phenyloxazol-4-
10 yl]benzenesulfonamide;
4-[2-(ethoxycarbonylmethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(methoxycarbonylmethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
15 4-[2-(2-carboxyethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(2-methoxycarbonylethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(2-ethoxycarbonylethyl)-5-phenyloxazol-4-
20 yl]benzenesulfonamide;
4-[2-(3-carboxypropyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(3-methoxycarbonylpropyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
25 4-[2-(3-ethoxycarbonylpropyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(2-quiniolyloxymethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-4-phenyloxazol-5-yl]benzenesulfonamide;
30 4-[2-benzyl-4-(2-fluorophenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(3-fluorophenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(4-fluorophenyl)oxazol-5-
35 yl]benzenesulfonamide;
4-[2-benzyl-4-(2,4-difluorophenyl)oxazol-5-
yl]benzenesulfonamide;

- 4-[2-benzyl-4-(2,5-difluorophenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2,6-difluorophenyl)oxazol-5-
y1]benzenesulfonamide;
- 5 4-[2-benzyl-4-(3,4-difluorophenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3,5-difluorophenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2-chlorophenyl)oxazol-5-
10 y1]benzenesulfonamide;
4-[2-benzyl-4-(3-chlorophenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(4-chlorophenyl)oxazol-5-
y1]benzenesulfonamide;
- 15 4-[2-benzyl-4-(2,4-dichlorophenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2,5-dichlorophenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2,6-dichlorophenyl)oxazol-5-
20 y1]benzenesulfonamide;
4-[2-benzyl-4-(3,4-dichlorophenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3,5-dichlorophenyl)oxazol-5-
y1]benzenesulfonamide;
- 25 4-[2-benzyl-4-(2-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(4-methoxyphenyl)oxazol-5-
30 y1]benzenesulfonamide;
4-[2-benzyl-4-(2,4-dimethoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2,5-dimethoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
- 35 4-[2-benzyl-4-(2,6-dimethoxyphenyl)oxazol-5-
y1]benzenesulfonamide;

- 4-[2-benzyl-4-(3,4-dimethoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3,5-dimethoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
5 4-[2-benzyl-4-(2-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(4-methylphenyl)oxazol-5-
10 y1]benzenesulfonamide;
4-[2-benzyl-4-(2,4-dimethylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2,5-dimethylphenyl)oxazol-5-
y1]benzenesulfonamide;
15 4-[2-benzyl-4-(2,6-dimethylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3,4-dimethylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3,5-dimethylphenyl)oxazol-5-
20 y1]benzenesulfonamide;
4-[2-benzyl-4-(2-chloro-4-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3-chloro-4-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
25 4-[2-benzyl-4-(3-chloro-2-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2-chloro-6-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(4-chloro-2-methylphenyl)oxazol-5-
30 y1]benzenesulfonamide;
4-[2-benzyl-4-(4-chloro-3-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2-chloro-4-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
35 4-[2-benzyl-4-(3-chloro-4-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;

- 4-[2-benzyl-4-(3-chloro-2-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2-chloro-6-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
5 4-[2-benzyl-4-(4-chloro-2-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(4-chloro-3-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3,5-dichloro-4-methoxyphenyl)oxazol-
10 5-y1]benzenesulfonamide;
4-[2-benzyl-4-(2-fluoro-4-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3-fluoro-4-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
15 4-[2-benzyl-4-(3-fluoro-2-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2-fluoro-6-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(4-fluoro-2-methylphenyl)oxazol-5-
20 20 20 20 20
y1]benzenesulfonamide;
4-[2-benzyl-4-(4-fluoro-3-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2-fluoro-4-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
25 4-[2-benzyl-4-(3-fluoro-4-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3-fluoro-2-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2-fluoro-6-methoxyphenyl)oxazol-5-
30 30 30 30 30
y1]benzenesulfonamide;
4-[2-benzyl-4-(4-fluoro-2-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(2-thienyl)oxazol-5-
y1]benzenesulfonamide;
35 4-[2-benzyl-4-(5-chloro-2-thienyl)oxazol-5-
y1]benzenesulfonamide;

4-[2-benzyl-4-(cyclohexyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(1-cyclohexenyl)oxazol-5-
y1]benzenesulfonamide;
5 4-[2-benzyl-4-(2-cyclohexenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3-cyclohexenyl)oxazol-5-
y1]benzenesulfonamide;
2-benzyl-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
10 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-
fluorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-
fluorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,4-
15 difluorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,5-
difluorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,6-
difluorophenyl)oxazole;
20 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,4-
difluorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,5-
difluorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-
25 chlorophenyl)oxazol-4-yl]benzenesulfonamide;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-
chlorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-
chlorophenyl)oxazol-4-yl]benzenesulfonamide;
30 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,4-
dichlorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,5-
dichlorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,6-
35 dichlorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,4-
dichlorophenyl)oxazole;

- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,5-dichlorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-methoxyphenyl)oxazole;
5 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,4-dimethoxyphenyl)oxazole;
10 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,5-dimethoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,6-dimethoxyphenyl)oxazole;
15 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,4-dimethoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,5-dimethoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-methylphenyl)oxazole;
20 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-methylphenyl)oxazole;
25 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,4-dimethylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,5-dimethylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2,6-dimethylphenyl)oxazole;
30 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,4-dimethylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,5-dimethylphenyl)oxazole;
35 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-chloro-4-methylphenyl)oxazole;

- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-chloro-4-methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-chloro-2-methylphenyl)oxazole;
5 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-chloro-6-methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-chloro-2-methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-chloro-3-methylphenyl)oxazole;
10 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-chloro-4-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-chloro-4-methoxyphenyl)oxazole;
15 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-chloro-2-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-chloro-6-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-chloro-2-methoxyphenyl)oxazole;
20 2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-chloro-3-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,5-dichloro-4-methoxyphenyl)oxazole;
25 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-fluoro-4-methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-fluoro-4-methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-fluoro-2-methylphenyl)oxazole;
30 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-fluoro-6-methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-fluoro-2-methylphenyl)oxazole;
35 2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-fluoro-3-methylphenyl)oxazole;

- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-fluoro-4-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-fluoro-4-methoxyphenyl)oxazole;
5 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-fluoro-2-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-fluoro-6-methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-fluoro-2-methoxyphenyl)oxazole;
10 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-thienyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(5-chloro-2-thienyl)oxazole;
15 2-benzyl-5-(4-methylsulfonylphenyl)-4-(cyclohexyl)oxazole-;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(1-cyclohexenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-
20 cyclohexenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-cyclohexenyl)oxazole;
2-(ethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
25 2-(trifluoromethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(difluoromethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(hydroxymethyl)-5-(4-methylsulfonylphenyl)-4-
30 phenyloxazole;
2-(carboxy)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(methoxycarbonyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
35 2-(ethoxycarbonyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;

- 2-(propyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(benzyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
5 2-(phenylthiomethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(phenoxy methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
10 2-((4-chlorophenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-((3-chlorophenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-((2-chlorophenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
15 2-((4-fluorophenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-((3-fluorophenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-((2-fluorophenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
20 2-((4-carboxyphenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-((3-carboxyphenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
25 2-((2-carboxyphenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(2-phenethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(3-phenpropyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
30 2-(carboxymethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(ethoxycarbonylmethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
35 2-(methoxycarbonylmethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;

- 2-(2-carboxyethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(2-methoxycarbonylethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
5 2-(2-ethoxycarbonylethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(3-carboxypropyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
10 2-(3-methoxycarbonylpropyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(3-ethoxycarbonylpropyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(2-quiniolyloxymethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
15 4-[2-(ethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(trifluoromethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(difluoromethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
20 4-[2-(hydroxymethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(carboxy)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(methoxycarbonyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
25 4-[2-(ethoxycarbonyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(propyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
30 4-[2-(benzyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(phenylthiomethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(phenoxyethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
35 4-[2-((4-chlorophenoxy)methyl)-4-phenyloxazol-5-yl]benzenesulfonamide;

- 4-[2-((3-chlorophenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-((2-chlorophenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
5 4-[2-((4-fluorophenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-((3-fluorophenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-((2-fluorophenoxy)methyl)-4-phenyloxazol-5-
10 yl]benzenesulfonamide;
4-[2-((4-carboxyphenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-((3-carboxyphenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
15 4-[2-((2-carboxyphenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(2-phenethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(3-phenpropyl)-4-phenyloxazol-5-
20 yl]benzenesulfonamide;
4-[2-(carboxymethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(ethoxycarbonylmethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
25 4-[2-(methoxycarbonylmethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(2-carboxyethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(2-methoxycarbonylethyl)-4-phenyloxazol-5-
30 yl]benzenesulfonamide;
4-[2-(2-ethoxycarbonylethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(3-carboxypropyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
35 4-[2-(3-methoxycarbonylpropyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;

- 4-[2-(3-ethoxycarbonylpropyl)-4-phenyloxazol-5-
y1]benzenesulfonamide;
4-[2-(2-quiniolyloxyethyl)-4-phenyloxazol-5-
y1]benzenesulfonamide;
5 5-(4-fluorophenyl)-2-methyl-4-[4-
(methylsulfonyl)phenyl]oxazole;
3-[5-(4-fluorophenyl)-4-[4-(methylsulfonyl)phenyl]
oxazol-2-y1]propanoic acid;
methyl 3-[5-(4-fluorophenyl)-4-[4-(methylsulfonyl)
10 phenyl]oxazol-2-y1]propanate;
4-(4-fluorophenyl)-2-(2-phenylethyl)-5-(4-
(methylsulfonyl)phenyl)oxazole;
4-(4-fluorophenyl)-2-methyl-5-[4-
(methylsulfonyl)phenyl]oxazole;
15 4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]-2-
phenyloxazole;
2-benzyl-4-(4-fluorophenyl)-5-(4-
(methylsulfonyl)phenyl)oxazole;
4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]-2-(3-
20 phenylpropyl)oxazole;
4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]-2-
propyloxazole;
2-(tert-butyl)-4-(4-fluorophenyl)-5-[4-
methylsulfonylphenyl]oxazole;
25 4-(4-fluorophenyl)-2-[(4-methoxyphenyl)methyl]-5-[4-
methylsulfonylphenyl]oxazole
4-(4-fluorophenyl)-2-[(3-methoxyphenyl)methyl]-5-[4-
methylsulfonylphenyl]oxazole;
2-(diphenylmethyl)-4-(4-fluorophenyl)-5-[4-
30 methylsulfonylphenyl]oxazole;
2-[4-(4-fluorophenyl)-5-[4-
methylsulfonylphenyl]oxazol-2-y1]acetic acid;
ethyl 2-[4-(4-fluorophenyl)-5-[4-
methylsulfonylphenyl]oxazol-2-y1]acetate;
35 3-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]
oxazol-2-y1]propanoic acid;
methyl 3-[4-(4-fluorophenyl)-5-[4-

methylsulfonylphenyl]oxazol-2-yl]propanate;
4-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]oxazol-2-yl]butanoic acid;
methyl 4-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]oxazol-2-yl]butanate;
3-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]oxazol-2-yl]propanamide;
ethyl 2-[4-(4-fluorophenyl)-5-[4-(methylsulfonylphenyl)oxazol-2-yl]-2-benzyl-acetate;
10 4-(4-fluorophenyl)-2-(cyclohexylethyl)-5-[4-(methylsulfonylphenyl)oxazole;
4-(4-fluorophenyl)-2-(3-fluorophenoxyethyl)-5-[4-(methylsulfonylphenyl)oxazole;
4-(4-fluorophenyl)-2-(3-chlorophenoxyethyl)-5-[4-(methylsulfonylphenyl)oxazole;
15 4-(4-fluorophenyl)-2-(pyridyloxymethyl)-5-[4-(methylsulfonylphenyl)oxazole;
4-(4-fluorophenyl)-5-[4-(methylsulfonylphenyl)-2-phenoxyethoxyloxazole;
20 4-(4-fluorophenyl)-2-(2-hydroxyethyl)-5-[4-(methylsulfonylphenyl)oxazole;
4-(4-fluorophenyl)-2-(hydroxymethyl)-5-[4-(methylsulfonylphenyl)oxazole;
4-(cyclohexyl)-2-phenyl-5-[4-(methylsulfonylphenyl)oxazole;
25 4-(4-fluorophenyl)-2-benzylloxymethyl-5-[4-(methylsulfonylphenyl)oxazole;
4-(4-fluorophenyl)-2-cyclohexyl-5-[4-(methylsulfonylphenyl)oxazole; and
30 5-(4-fluorophenyl)-2-phenyl-4-[4-(methylsulfonylphenyl)oxazole.

Within Formula I there is a subclass
of compounds of high interest wherein R is selected
35 from alkyl, hydroxyalkyl, haloalkyl, cycloalkyl,
cycloalkylalkyl, aryl optionally substituted at a
substitutable position by carboxy, alkyl, alkoxy and

halo, aralkyl optionally substituted at a substitutable position on the aryl radical by carboxy, alkyl, alkoxy and halo, aryloxyalkyl optionally substituted at a substitutable position on 5 the aryl radical with halo, carboxy, alkyl and alkoxy, aralkoxyalkyl optionally substituted at a substitutable position by alkyl, carboxy, alkoxy and halo, heteroaryloxyalkyl optionally substituted at a substitutable position on the heteroaryl radical with 10 halo, carboxy, alkyl and alkoxy, alkoxycarbonylalkyl, carboxyalkyl and aminocarbonylalkyl; wherein R¹ is selected from cycloalkyl, cycloalkenyl, heteroaryl and aryl optionally substituted at a substitutable position by alkyl, alkoxy and halo, and wherein R² is 15 methyl; or a pharmaceutically-acceptable salt thereof; provided R¹ is not phenyl when R is isopropyl or tert-butyl.

A more preferred class of compounds of the 20 first subclass wherein R is selected from lower alkyl, lower hydroxyalkyl, lower haloalkyl, lower cycloalkyl, lower cycloalkylalkyl, aryl selected from phenyl and naphthyl, optionally substituted at a substitutable position by halo, carboxy, lower alkyl and lower 25 alkoxy, lower aralkyl optionally substituted at a substitutable position on the aryl radical by halo, carboxy, lower alkyl and lower alkoxy, lower aryloxyalkyl optionally substituted at a substitutable position on the aryl radical with halo, carboxy, lower 30 alkyl and lower alkoxy, aralkoxyalkyl optionally substituted at a substitutable position by halo, carboxy, lower alkyl and lower alkoxy, lower heteroaryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, lower alkyl 35 and lower alkoxy, lower alkoxycarbonylalkyl, lower carboxyalkyl and lower aminocarbonylalkyl; and

wherein R¹ is selected from lower cycloalkyl, lower cycloalkenyl, phenyl, naphthyl, pyridyl, thienyl, thiazolyl, oxazolyl, imidazolyl, furyl, quinolyl, benzothiazolyl, 2,3-5 thianaphthalenyl, 2,3-dihydrothianaphthalenyl, 2,3-benzofuryl, and 2,3-dihydrobenzofuryl, wherein R¹ is optionally substituted at a substitutable position by lower alkyl, lower alkoxy and halo; or a pharmaceutically-acceptable salt or prodrug thereof.

10 A class of compounds of particular interest consists of those compounds of the first subclass wherein R is selected from methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, 15 hydroxymethyl, fluoromethyl, difluoromethyl, trifluoromethyl, chloromethyl, dichloromethyl, trichloromethyl, pentafluoroethyl, heptafluoropropyl, difluorochloromethyl, dichlorofluoromethyl, difluoroethyl, difluoropropyl, dichloroethyl, 20 dichloropropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, cyclohexylethyl, cyclohexylpropyl, cycloheptylmethyl, aryl selected from phenyl and naphthyl, optionally substituted at a substitutable 25 position by fluoro, chloro, bromo, iodo, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, carboxy, methoxy, ethoxy, propoxy and butoxy, benzyl, phenethyl, diphenylmethyl and phenpropyl, optionally substituted at a substitutable 30 position on the phenyl radical by fluoro, chloro, bromo, iodo, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, carboxy, methoxy, ethoxy, propoxy and butoxy, phenoxyethyl optionally substituted at a substitutable position with fluoro, 35 chloro, bromo, iodo, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, carboxy, methoxy, ethoxy, propoxy and butoxy, benzyloxymethyl

optionally substituted at a substitutable position by fluoro, chloro, bromo, iodo, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, carboxy, methoxy, ethoxy, propoxy and butoxy, pyridyloxymethyl and quinolyloxymethyl, optionally substituted at a substitutable position by fluoro, chloro, bromo, iodo, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, carboxy, methoxy, ethoxy, propoxy and butoxy, methoxycarbonylmethyl, ethoxycarbonylmethyl, methoxycarbonylethyl, ethoxycarbonylethyl, acetyl, propanoic, butanoic, pentanoic, hexanoic and aminocarbonylmethyl; and wherein R¹ is selected from cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, 1-cyclohexenyl, 2-cyclohexenyl, 3-cyclohexenyl, phenyl, naphthyl, pyridyl, thienyl, thiazolyl, oxazolyl, imidazolyl, furyl, quinolyl, benzothiazolyl, 2,3-thianaphthalenyl, 2,3-dihydrothianaphthalenyl, 2,3-benzofuryl, and 2,3-dihydrobenzofuryl, wherein R¹ is 20 optionally substituted at a substitutable position by methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy, butoxy, fluoro, chloro, bromo and iodo.

25 A family of specific compounds of particular interest within the first subclass consists of compounds and pharmaceutically-acceptable salts thereof as follows:

30 5-(4-fluorophenyl)-2-methyl-4-[4-(methylsulfonyl)phenyl]oxazole;
3-[5-(4-fluorophenyl)-4-[4-(methylsulfonyl)phenyl]-2-oxazol-2-yl]propanoic acid;
methyl 3-[5-(4-fluorophenyl)-4-[4-(methylsulfonyl)phenyl]-2-oxazol-2-yl]propanate;
35 4-(4-fluorophenyl)-2-(2-phenylethyl)-5-(4-(methylsulfonyl)phenyl)oxazole;
4-(4-fluorophenyl)-2-methyl-5-[4-

methylsulfonylphenyl]oxazole;
4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]-2-
phenyloxazole;
2-benzyl-4-(4-fluorophenyl)-5-(4-
5 (methylsulfonyl)phenyl)oxazole;
4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]-2-(3-
phenylpropyl)oxazole;
4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]-2-
propyloxazole;
10 2-(tert-butyl)-4-(4-fluorophenyl)-5-[4-
methylsulfonylphenyl]oxazole;
4-(4-fluorophenyl)-2-[(4-methoxyphenyl)methyl]-5-[4-
methylsulfonylphenyl]oxazole
4-(4-fluorophenyl)-2-[(3-methoxyphenyl)methyl]-5-[4-
15 methylsulfonylphenyl]oxazole;
2-(diphenylmethyl)-4-(4-fluorophenyl)-5-[4-
methylsulfonylphenyl]oxazole;
2-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]
oxazol-2-yl]acetic acid;
20 ethyl 2-[4-(4-fluorophenyl)-5-[4-
methylsulfonylphenyl]oxazol-2-yl]acetate;
3-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]
oxazol-2-yl]propanoic acid;
methyl 3-[4-(4-fluorophenyl)-5-[4-methylsulfonyl
25 phenyl]oxazol-2-yl]propanate;
4-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]
oxazol-2-yl]butanoic acid;
methyl 4-[4-(4-fluorophenyl)-5-(4-methylsulfonyl
phenyl)oxazol-2-yl]butanate;
30 3-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]
oxazol-2-yl]propanamide;
ethyl 2-[4-(4-fluorophenyl)-5-[4-(methylsulfonyl)
phenyl]oxazol-2-yl]-2-benzyl-acetate;
4-(4-fluorophenyl)-2-(cyclohexylethyl)-5-[4-
35 (methylsulfonyl)phenyl]oxazole;
4-(4-fluorophenyl)-2-(3-fluorophenoxyethyl)-5-[4-
(methylsulfonyl)phenyl]oxazole;

4-(4-fluorophenyl)-2-(3-chlorophenoxyethyl)-5-[4-(methylsulfonyl)phenyl]oxazole;
4-(4-fluorophenyl)-2-(pyridyloxymethyl)-5-[4-(methylsulfonyl)phenyl]oxazole;
5 4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]-2-phenoxyethoxyloxazole;
4-(4-fluorophenyl)-2-(2-hydroxyethyl)-5-[4-(methylsulfonyl)phenyl]oxazole;
4-(4-fluorophenyl)-2-(hydroxymethyl)-5-[4-(methylsulfonyl)phenyl]oxazole;
10 4-(cyclohexyl)-2-phenyl-5-[4-(methylsulfonyl)phenyl]oxazole;
4-(4-fluorophenyl)-2-benzylloxymethyl-5-[4-(methylsulfonyl)phenyl]oxazole;
15 4-(4-fluorophenyl)-2-cyclohexyl-5-[4-(methylsulfonyl)phenyl]oxazole; and
5-(4-fluorophenyl)-2-phenyl-4-[4-(methylsulfonyl)phenyl]oxazole.

20 Within Formula I there is a second subclass of compounds of high interest wherein R is selected from alkyl, hydroxyalkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl optionally substituted at a substitutable position by carboxy, alkyl, alkoxy and halo, aralkyl optionally substituted at a substitutable position on the aryl radical by carboxy, alkyl, alkoxy and halo, aryloxyalkyl optionally substituted at a substitutable position on the aryl radical with halo, carboxy, alkyl and alkoxy, aralkoxyalkyl optionally substituted at a substitutable position by alkyl, carboxy, alkoxy and halo, heteroaryloxyalkyl optionally substituted at a substitutable position on the heteroaryl radical with halo, carboxy, alkyl and alkoxy, alkoxy carbonylalkyl, 25 carboxyalkyl and aminocarbonylalkyl; wherein R¹ is selected from cycloalkyl, cycloalkenyl, heteroaryl and aryl optionally substituted at a substitutable

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position by alkyl, alkoxy and halo; and wherein R² is amino; or a pharmaceutically-acceptable salt or prodrug thereof; provided R is not methyl.

5 A more preferred class of compounds of the second subclass consists of those compounds of wherein R is selected from lower alkyl, lower hydroxyalkyl, lower haloalkyl, lower cycloalkyl, lower cycloalkylalkyl, aryl selected from phenyl and 10 naphthyl, optionally substituted at a substitutable position by halo, carboxy, lower alkyl and lower alkoxy, lower aralkyl optionally substituted at a substitutable position on the aryl radical by halo, carboxy, lower alkyl and lower alkoxy, lower 15 aryloxyalkyl optionally substituted at a substitutable position on the aryl radical with halo, carboxy, lower alkyl and lower alkoxy, aralkoxyalkyl optionally substituted at a substitutable position by halo, carboxy, lower alkyl and lower alkoxy, lower 20 heteroaryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, lower alkyl and lower alkoxy, lower alkoxy carbonylalkyl, lower carboxyalkyl and lower aminocarbonylalkyl; and wherein R¹ is selected from lower cycloalkyl, lower 25 cycloalkenyl, phenyl, naphthyl, pyridyl, thienyl, thiazolyl, oxazolyl, imidazolyl, furyl, quinolyl, benzothiazolyl, 2,3-thianaphthalenyl, 2,3-dihydrothianaphthalenyl, 2,3-benzofuryl, and 2,3-dihydrobenzofuryl, wherein R¹ is optionally 30 substituted at a substitutable position by lower alkyl, lower alkoxy and halo; or a pharmaceutically-acceptable salt or prodrug thereof.

A class of compounds of particular interest 35 consists of those compounds of the second subclass wherein R is selected from methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl,

hydroxymethyl, fluoromethyl, difluoromethyl,
trifluoromethyl, chloromethyl, dichloromethyl,
trichloromethyl, pentafluoroethyl, heptafluoropropyl,
difluorochloromethyl, dichlorofluoromethyl,
5 difluoroethyl, difluoropropyl, dichloroethyl,
dichloropropyl, cyclobutyl, cyclopentyl, cyclohexyl,
cycloheptyl, cyclobutylmethyl, cyclopentylmethyl,
cyclohexylmethyl, cyclohexylethyl, cyclohexylpropyl,
cycloheptylmethyl, aryl selected from phenyl and
10 naphthyl, optionally substituted at a substitutable
position by fluoro, chloro, bromo, iodo, methyl,
ethyl, n-propyl, isopropyl, butyl, tert-butyl,
isobutyl, carboxy, methoxy, ethoxy, propoxy and
butoxy, benzyl, phenethyl, diphenylmethyl and
15 phenpropyl, optionally substituted at a substitutable
position on the phenyl radical by fluoro, chloro,
bromo, iodo, methyl, ethyl, n-propyl, isopropyl,
butyl, tert-butyl, isobutyl, carboxy, methoxy,
ethoxy, propoxy and butoxy, phenoxyethyl optionally
20 substituted at a substitutable position with fluoro,
chloro, bromo, iodo, methyl, ethyl, n-propyl,
isopropyl, butyl, tert-butyl, isobutyl, carboxy,
methoxy, ethoxy, propoxy and butoxy, benzyloxymethyl
optionally substituted at a substitutable position by
25 fluoro, chloro, bromo, iodo, methyl, ethyl, n-propyl,
isopropyl, butyl, tert-butyl, isobutyl, carboxy,
methoxy, ethoxy, propoxy and butoxy, pyridyloxymethyl
and quinolyloxymethyl, optionally substituted at a
substitutable position by fluoro, chloro, bromo,
30 iodo, methyl, ethyl, n-propyl, isopropyl, butyl,
tert-butyl, isobutyl, carboxy, methoxy, ethoxy,
propoxy and butoxy, methoxycarbonylmethyl,
ethoxycarbonylmethyl, methoxycarbonylethyl,
ethoxycarbonylethyl, acetyl, propanoic, butanoic,
35 pentanoic, hexanoic and aminocarbonylmethyl; and
wherein R¹ is selected from cyclobutyl, cyclopentyl,
cyclohexyl, cycloheptyl, 1-cyclohexenyl, 2-

cyclohexenyl, 3-cyclohexenyl, phenyl, naphthyl,
pyridyl, thietyl, thiazolyl, oxazolyl, imidazolyl,
furyl, quinolyl, benzothiazolyl, 2,3-
thianaphthalenyl, 2,3-dihydrothianaphthalenyl, 2,3-
5 benzofuryl, and 2,3-dihydrobenzofuryl, wherein R¹ is
optionally substituted at a substitutable position by
methyl, ethyl, n-propyl, isopropyl, butyl, tert-
butyl, isobutyl, methoxy, ethoxy, propoxy, butoxy,
fluoro, chloro, bromo and iodo.

10

A family of specific compounds of particular
interest within the second subclass consists of compounds
and pharmaceutically-acceptable salts thereof as follows:

- 15 4-[2-benzyl-5-(phenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(4-fluorophenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3,4-difluorophenyl)oxazol-4-
y1]benzenesulfonamide;
20 4-[2-benzyl-5-(4-chlorophenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3,4-dichlorophenyl)oxazol-4-
y1]benzenesulfonamide;
25 4-[2-benzyl-5-(4-methoxyphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3,4-dimethoxyphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(4-methylphenyl)oxazol-4-
30 y1]benzenesulfonamide;
4-[2-benzyl-5-(3,4-dimethylphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3-chloro-4-methylphenyl)oxazol-4-
y1]benzenesulfonamide;
35 4-[2-benzyl-5-(4-chloro-3-methylphenyl)oxazol-4-
y1]benzenesulfonamide;

- 4-[2-benzyl-5-(3-chloro-4-methoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(4-chloro-3-methoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
5 4-[2-benzyl-5-(3,5-dichloro-4-methoxyphenyl)oxazol-
4-yl]benzenesulfonamide;
4-[2-benzyl-5-(3-fluoro-4-methylphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(4-fluoro-3-methylphenyl)oxazol-4-
10 yl]benzenesulfonamide;
4-[2-benzyl-5-(3-fluoro-4-methoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2-thienyl)oxazol-4-
yl]benzenesulfonamide;
15 4-[2-benzyl-5-(5-chloro-2-thienyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(cyclohexyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(1-cyclohexenyl)oxazol-4-
20 yl]benzenesulfonamide;
4-[2-(ethyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(trifluoromethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(difluoromethyl)-5-phenyloxazol-4-
25 yl]benzenesulfonamide;
4-[2-(hydroxymethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(carboxy)-5-phenyloxazol-4-
yl]benzenesulfonamide;
30 4-[2-(methoxycarbonyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(ethoxycarbonyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(n-propyl)-5-phenyloxazol-4-
35 yl]benzenesulfonamide;
4-[2-(benzyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;

- 4-[2-(phenoxyethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-((4-chlorophenoxy)methyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
5 4-[2-((4-fluorophenoxy)methyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-((4-carboxyphenoxy)methyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(2-phenylethyl)-5-phenyloxazol-4-
10 yl]benzenesulfonamide;
4-[2-(3-phenylpropyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(carboxymethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
15 4-[2-(ethoxycarbonylmethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(methoxycarbonylmethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(2-quiniolyloxyethyl)-5-phenyloxazol-4-
20 yl]benzenesulfonamide;
4-[2-benzyl-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-benzyl-4-(3,4-difluorophenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(4-chlorophenyl)oxazol-5-
25 yl]benzenesulfonamide;
4-[2-benzyl-4-(3,4-dichlorophenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(4-methoxyphenyl)oxazol-5-
yl]benzenesulfonamide;
30 4-[2-benzyl-4-(3,4-dimethoxyphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(4-methylphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(3,4-dimethylphenyl)oxazol-5-
35 yl]benzenesulfonamide;
4-[2-benzyl-4-(3-chloro-4-methylphenyl)oxazol-5-
yl]benzenesulfonamide;

- 4-[2-benzyl-4-(4-chloro-3-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3-chloro-4-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
5 4-[2-benzyl-4-(4-chloro-3-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3,5-dichloro-4-methoxyphenyl)oxazol-
5-y1]benzenesulfonamide;
4-[2-benzyl-4-(3-fluoro-4-methylphenyl)oxazol-5-
10 y1]benzenesulfonamide;
4-[2-benzyl-4-(4-fluoro-3-methylphenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(3-fluoro-4-methoxyphenyl)oxazol-5-
y1]benzenesulfonamide;
15 4-[2-benzyl-4-(2-thienyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(5-chloro-2-thienyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-benzyl-4-(cyclohexyl)oxazol-5-
20 y1]benzenesulfonamide;
4-[2-benzyl-4-(1-cyclohexenyl)oxazol-5-
y1]benzenesulfonamide;
4-[2-(ethyl)-4-phenyloxazol-5-y1]benzenesulfonamide;
4-[2-(trifluoromethyl)-4-phenyloxazol-5-
25 y1]benzenesulfonamide;
4-[2-(difluoromethyl)-4-phenyloxazol-5-
y1]benzenesulfonamide;
4-[2-(hydroxymethyl)-4-phenyloxazol-5-
y1]benzenesulfonamide;
30 4-[2-(carboxy)-4-phenyloxazol-5-
y1]benzenesulfonamide;
4-[2-(methoxycarbonyl)-4-phenyloxazol-5-
y1]benzenesulfonamide;
4-[2-(ethoxycarbonyl)-4-phenyloxazol-5-
35 y1]benzenesulfonamide;
4-[2-(propyl)-4-phenyloxazol-5-
y1]benzenesulfonamide;

- 4-[2-(benzyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(phenoxyethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
5 4-[2-((4-chlorophenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-((4-fluorophenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-((4-carboxyphenoxy)methyl)-4-phenyloxazol-5-
10 yl]benzenesulfonamide;
4-[2-(2-phenethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(3-phenpropyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
15 4-[2-(carboxymethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(ethoxycarbonylmethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(methoxycarbonylmethyl)-4-phenyloxazol-5-
20 yl]benzenesulfonamide;
4-[2-(2-quiniolyloxyethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[5-(4-fluorophenyl)-2-methyl-oxazol-4-
yl]benzenesulfonamide;
25 [5-(4-fluorophenyl)-4-(4-aminosulfonylphenyl)-2-
oxazol-2-yl]propanoic acid;
methyl 3-[5-(4-fluorophenyl)-4-(4-
aminosulfonylphenyl)oxazol-2-yl]propanate;
4-[4-(4-fluorophenyl)-2-(2-phenylethyl)-oxazol-5-
30 yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-methyloxazol-5-
yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-phenyloxazol-5-
yl]benzenesulfonamide;
35 4-[2-benzyl-4-(4-fluorophenyl)oxazol-5-
yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-(3-phenylpropyl)oxazol-5-

- yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-propyloxazol-5-
yl]benzenesulfonamide;
4-[2-(tert-butyl)-4-(4-fluorophenyl)oxazol-5-
5 yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-(4-methoxyphenyl)
methyloxazol-5-yl]benzenesulfonamide
4-[4-(4-fluorophenyl)-2-(3-methoxyphenyl)
methyloxazol-5-yl]benzenesulfonamide;
10 4-[2-diphenylmethyl-4-(4-fluorophenyl)oxazol-5-
 yl]benzenesulfonamide;
2-[4-(4-fluorophenyl)-5-[4-
 aminosulfonylphenyl]oxazol-2-yl]acetic acid;
ethyl 2-[4-(4-fluorophenyl)-5-[4-aminosulfonylphenyl]
15 oxazol-2-yl]acetate;
3-[4-(4-fluorophenyl)-5-[4-
 aminosulfonylphenyl]oxazol-2-yl]propanoic acid;
methyl 3-[4-(4-fluorophenyl)-5-[4-
 aminosulfonylphenyl]oxazol-2-yl]propanate;
20 4-[4-(4-fluorophenyl)-5-[4-
 aminosulfonylphenyl]oxazol-2-yl]butanoic acid;
methyl 4-[4-(4-fluorophenyl)-5-[4-aminosulfonyl
phenyl]oxazol-2-yl]butanate;
3-[4-(4-fluorophenyl)-5-[4-aminosulfonyl
25 phenyl]oxazol-2-yl]propanamide;
ethyl 2-[4-(4-fluorophenyl)-5-[4-aminosulfonyl
phenyl]oxazol-2-yl]-2-benzyl-acetate;
4-[4-(4-fluorophenyl)-2-(cyclohexylethyl)oxazol-5-
yl]benzenesulfonamide;
30 4-[4-(4-fluorophenyl)-2-(3-fluorophenoxyethyl)
 oxazol-5-yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-(3-chlorophenoxyethyl)
 oxazol-5-yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-(pyridyloxymethyl)oxazol-5-
35 yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-phenoxyethyl]oxazol-5-
 yl]benzenesulfonamide;

- 4-[4-(4-fluorophenyl)-2-(2-hydroxyethyl)oxazol-5-
yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-(hydroxymethyl)oxazol-5-
yl]benzenesulfonamide;
5 4-[4-(cyclohexyl)-2-phenyloxazol-5-
yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-benzyloxymethyloxazol-5-
yl]benzenesulfonamide;
4-[4-(4-fluorophenyl)-2-cyclohexyloxazol-5-
10 yl]benzenesulfonamide; and
4-[5-(4-fluorophenyl)-2-phenyloxazol-4-
yl]benzenesulfonamide.

Where the term "alkyl" is used, either alone or
15 within other terms such as "haloalkyl", "alkoxyalkyl" and
"hydroxyalkyl", embraces linear or branched radicals having
one to about twenty carbon atoms or, preferably, one to
about twelve carbon atoms. More preferred alkyl radicals
are "lower alkyl" radicals having one to about ten carbon
20 atoms. Most preferred are lower alkyl radicals having one
to about six carbon atoms. Examples of such radicals
include methyl, ethyl, n-propyl, isopropyl, n-butyl,
isobutyl, sec-butyl, tert-butyl, pentyl, iso-amyl, hexyl
and the like. Where the term "alkenyl" is used, it
25 embraces linear or branched carbon double bond-
containing radicals having two to about twenty carbon atoms
or, preferably, two to about twelve carbon atoms. More
preferred alkenyl radicals are "lower alkenyl" radicals
having two to about six carbon atoms. Suitable "lower
30 alkenyl" may be a straight or branched one such as vinyl,
allyl, isopropenyl, 1- or 2-propenyl, 1-, 2- or 3-butenyl,
pentenyl or the like. The term "alkynyl" embraces linear
or branched radicals having two to about twenty carbon
atoms or, preferably, two to about twelve carbon atoms, and
35 containing a carbon-carbon triple bond. The more preferred
"lower alkynyl" are radicals having two to ten carbons.
Examples of such radicals include ethynyl, 1- or 2-

propynyl, 1-, 2- or 3-butynyl and the like and isomers thereof. The term "hydrido" denotes a single hydrogen atom (H). This hydrido radical may be attached, for example, to an oxygen atom to form a hydroxyl radical or two hydrido radicals may be attached to a carbon atom to form a methylene (-CH₂-) radical. The term "halo" means halogens such as fluorine, chlorine, bromine or iodine. The term "haloalkyl" embraces radicals wherein any one or more of the alkyl carbon atoms is substituted with halo as defined above. Specifically embraced are monohaloalkyl, dihaloalkyl and polyhaloalkyl radicals. A monohaloalkyl radical, for one example, may have either a bromo, chloro or a fluoro atom within the radical. Dihalo and polyhaloalkyl radicals may have two or more of the same halo atoms or a combination of different halo radicals. The term "hydroxyalkyl" embraces linear or branched alkyl radicals having one to about twelve carbon atoms any one of which may be substituted with one or more hydroxyl radicals. The term "hydroxyalkenyl" embraces linear or branched alkenyl radicals having two to about ten carbon atoms any one of which may be substituted with one or more hydroxyl radicals. The term "hydroxyalkynyl" embraces linear or branched alkynyl radicals having two to about ten carbon atoms any one of which may be substituted with one or more hydroxyl radicals. The terms "alkoxy" and "alkoxyalkyl" embrace linear or branched oxy-containing radicals each having alkyl portions of one to about twelve carbon atoms, such as methoxy radical. The term "alkoxyalkyl" also embraces alkyl radicals having two or more alkoxy radicals attached to the alkyl radical, that is, to form monoalkoxyalkyl and dialkoxyalkyl radicals. The "alkoxy" or "alkoxyalkyl" radicals may be further substituted with one or more halo atoms, such as fluoro, chloro or bromo, to provide haloalkoxy or haloalkoxyalkyl radicals. The term "aryl" embraces aromatic radicals such as phenyl, naphthyl and biphenyl. Preferred aryl radicals are those consisting of one, two, or three benzene rings. The term "heteroaryl"

embraces radicals having an unsaturated 3 to 6 membered heteromonocyclic group containing 1 to 4 nitrogen atoms, for example, pyrrolyl, pyrrolinyl, imidazolyl, pyrazolyl, pyridyl, pyrimidyl, pyrazinyl, pyridazinyl, triazolyl [e.g., 4H-1,2,4-triazolyl, 1H-1,2,3-triazolyl, 2H-1,2,3-triazolyl, etc.] tetrazolyl [e.g. 1H-tetrazolyl, 2H-tetrazolyl, etc.], etc.; unsaturated condensed heterocyclic group containing 1 to 5 nitrogen atoms, for example, indolyl, isoindolyl, indolizinyl, benzimidazolyl, quinolyl, isoquinolyl, indazolyl, benzotriazolyl, tetrazolopyridazinyl [e.g., tetrazolo [1,5-b]pyridazinyl, etc.], etc.; unsaturated 3 to 6-membered heteromonocyclic group containing an oxygen atom, for example, pyranyl, furyl, etc.; unsaturated 3 to 6-membered heteromonocyclic group containing a sulfur atom, for example, thienyl, etc.; unsaturated 3- to 6-membered heteromonocyclic group containing 1 to 2 oxygen atoms and 1 to 3 nitrogen atoms, for example, oxazolyl, isoxazolyl, oxadiazolyl [e.g., 1,2,4-oxadiazolyl, 1,3,4-oxadiazolyl, 1,2,5-oxadiazolyl, etc.] etc.; unsaturated condensed heterocyclic group containing 1 to 2 oxygen atoms and 1 to 3 nitrogen atoms [e.g. benzoxazolyl, benzoxadiazolyl, etc.]; unsaturated 3 to 6-membered heteromonocyclic group containing 1 to 2 sulfur atoms and 1 to 3 nitrogen atoms, for example, thiazolyl, thiadiazolyl [e.g., 1,2,4-thiadiazolyl, 1,3,4-thiadiazolyl, 1,2,5-thiadiazolyl, etc.] etc.; unsaturated condensed heterocyclic group containing 1 to 2 sulfur atoms and 1 to 3 nitrogen atoms [e.g., benzothiazolyl, benzothiadiazolyl, etc.] and the like. The term "aralkyl" embraces aryl-substituted alkyl radicals such as benzyl, diphenylmethyl, triphenylmethyl, phenethyl, and diphenethyl. The terms benzyl and phenylmethyl are interchangeable. The term "aryloxy" embrace oxy-containing aryl radicals attached through an oxygen atom to other radicals. More preferred aryloxy radicals are "lower aryloxy" radicals having a phenyl radical. An example of such radicals is phenoxy. The term "aryloxyalkyl" embraces

alkyl radicals having one or more aryloxy radicals attached to the alkyl radical, that is, to form monoaryloxyalkyl and diaryloxyalkyl radicals. The "aryloxy" or "aryloxyalkyl" radicals may be further substituted to provide

5 haloaryloxyalkyl radicals alkylaryloxy radicals, and the like. Examples of such radicals include chlorophenoxy and methylphenoxy. The term "aralkyloxy" embrace oxy-containing aralkyl radicals attached through an oxygen atom to other radicals. The term "aralkyloxyalkyl" embraces alkyl

10 radicals having one or more aralkyloxy radicals attached to the alkyl radical, that is, to form monoaralkyloxyalkyl and diaralkyloxyalkyl radicals. The "aralkyloxy" or "aralkyloxyalkyl" radicals may be further substituted on the aryl ring portion of the radical. The term

15 "heteroaryloxyalkyl" embraces alkyl radicals having one or more heteroaryloxy radicals attached to the alkyl radical, that is, to form monoheteroaryloxyalkyl and diheteroaryloxyalkyl radicals. The "heteroaryloxy" radicals may be further substituted on the heteroaryl ring portion

20 of the radical. The term "arylthio" embraces radicals containing an aryl radical, as described above, attached to a divalent sulfur atom, such as a phenylthio radical. The term "arylthioalkyl" embraces alkyl radicals substituted with one or more arylthio radicals, as described above.

25 The term "cycloalkyl" embraces radicals having three to ten carbon atoms, such as cyclopropyl cyclobutyl, cyclopentyl, cyclohexyl and cycloheptyl. The term "cycloalkylalkyl" embraces alkyl radicals substituted with cycloalkyl radicals having three to ten carbon atoms, such as

30 cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, cyclohexylethyl, cyclohexylpropyl and cycloheptylmethyl. The term "cycloalkenyl" embraces unsaturated radicals having three to ten carbon atoms, such as cyclopropenyl, cyclobutenyl, cyclopentenyl, cyclohexenyl

35 and cycloheptenyl. The term "sulfonyl", whether used alone or linked to other terms such as alkylsulfonyl, denotes respectively divalent radicals $-SO_2-$. "Alkylsulfonyl"

embraces alkyl radicals attached to a sulfonyl radical, where alkyl is defined as above. The "alkylsulfonyl" radicals may be further substituted with one or more halo atoms, such as fluoro, chloro or bromo, to provide

5 haloalkylsulfonyl radicals. The terms "sulfamyl", "aminosulfonyl" and "sulfonamidyl" denote a sulfonyl radical substituted with an amine radical, forming a sulfonamide (-SO₂NH₂). The terms "carboxy" or "carboxyl", whether used alone or with other terms, such as

10 "carboxyalkyl", denotes -CO₂H. The terms "carboxyalkyl" and "alkanoyl" embrace radicals having a carboxy radical as defined above, attached to an alkyl radical, which may be substituted or unsubstituted. Examples of such radicals include formyl, acetyl, propionyl, butyryl, isobutyryl,

15 valeryl, isovaleryl, pivaloyl, hexanoyl, trifluoroacetyl or the like, in which the preferable one is formyl, acetyl, propionyl or trifluoroacetyl. The term "alkoxycarbonyl" means a radical containing an alkoxy radical, as defined above, attached via an oxygen atom to a "carbonyl" (-C=O)

20 radical. Examples of such "alkoxycarbonyl" ester radicals include substituted or unsubstituted methoxycarbonyl, ethoxycarbonyl, propoxycarbonyl, butoxycarbonyl and hexyloxycarbonyl. The term "alkoxycarbonylalkyl" embraces alkyl radicals having one or more alkoxy carbonyl radicals

25 attached to the alkyl radical. The term "aminocarbonylalkyl" embraces alkyl radicals having one or more aminocarbonyl radicals attached to the alkyl radical. The term "alkylaminocarbonylalkyl" embraces alkyl radicals having aminocarbonyl radicals substituted with one or two

30 alkyl radicals. Examples of such include N-alkylaminocarbonylalkyl and N,N-dialkylaminocarbonylalkyl radicals such as N-methylaminocarbonylmethyl and N,N-dimethylaminocarbonylmethyl.

35 The present invention comprises a pharmaceutical composition for the treatment of inflammation and inflammation-associated disorders, such as arthritis,

comprising a therapeutically-effective amount of a compound of Formula I in association with at least one pharmaceutically-acceptable carrier, adjuvant or diluent.

5 The present invention also comprises a therapeutic method of treating inflammation or inflammation-associated disorders in a subject, the method comprising administering to a subject having such inflammation or disorder a therapeutically-effective amount
10 of a compound of Formula I.

Also included in the family of compounds of Formula I are isomeric forms including and the pharmaceutically-acceptable salts thereof. The term
15 "pharmaceutically-acceptable salts" embraces salts commonly used to form alkali metal salts and to form addition salts of free acids or free bases. The nature of the salt is not critical, provided that it is pharmaceutically-acceptable. Suitable pharmaceutically-acceptable acid addition salts of
20 compounds of Formula I may be prepared from an inorganic acid or from an organic acid. Examples of such inorganic acids are hydrochloric, hydrobromic, hydroiodic, nitric, carbonic, sulfuric and phosphoric acid. Appropriate organic acids may be selected from aliphatic,
25 cycloaliphatic, aromatic, araliphatic, heterocyclic, carboxylic and sulfonic classes of organic acids, example of which are formic, acetic, propanoic, succinic, glycolic, gluconic, lactic, malic, tartaric, citric, ascorbic, glucuronic, maleic, fumaric, pyruvic, aspartic, glutamic,
30 benzoic, anthranilic, mesylic, salicyclic, salicyclic, p-hydroxybenzoic, phenylacetic, mandelic, embonic (pamoic), methanesulfonic, ethanesulfonic, benzenesulfonic, pantothenic, 2-hydroxyethanesulfonic, toluenesulfonic, sulfanilic, cyclohexylaminosulfonic, stearic, algenic, β -
35 hydroxybutyric, salicyclic, galactaric and galacturonic acid. Suitable pharmaceutically-acceptable base addition salts of compounds of Formula I include metallic salts made

from aluminum, calcium, lithium, magnesium, potassium, sodium and zinc or organic salts made from N,N'-dibenzylethylenediamine, chloroprocaine, choline, diethanolamine, ethylenediamine, meglumine (N-methylglucamine) and procaine. All of these salts may be prepared by conventional means from the corresponding compound of Formula I by reacting, for example, the appropriate acid or base with the compound of Formula I.

The compounds of the present invention may contain prodrugs of compounds of the current invention. The term "prodrug" embraces compounds which are metabolized in vivo into compounds of the invention.

The compounds of the present invention may contain asymmetric carbon atoms, and, therefore, the instant invention may also include the individual diastereomers and enantiomers, which may be prepared or isolated by methods known to those skilled in the art.

In other words, any resulting racemate can be resolved into the optical antipodes by known methods, for example, by separation of the diastereomeric salts thereof, with an optically active acid, and liberating the optically active amine compound by treatment with a base. Racemic compounds of the present invention can thus be resolved into their optical antipodes e.g., by fractional crystallization of d- or l-(tartrates, mandelates, or camphorsulfonate) salts.

Additional methods for resolving optical isomers, known to those skilled in the art may be used, for example, those discussed by J. Jaques et al. in Enantiomers, Racemates, and Resolutions, John Wiley and Sons, New York (1981).

Compounds of the present invention also are meant to include, where possible, hydrated species.

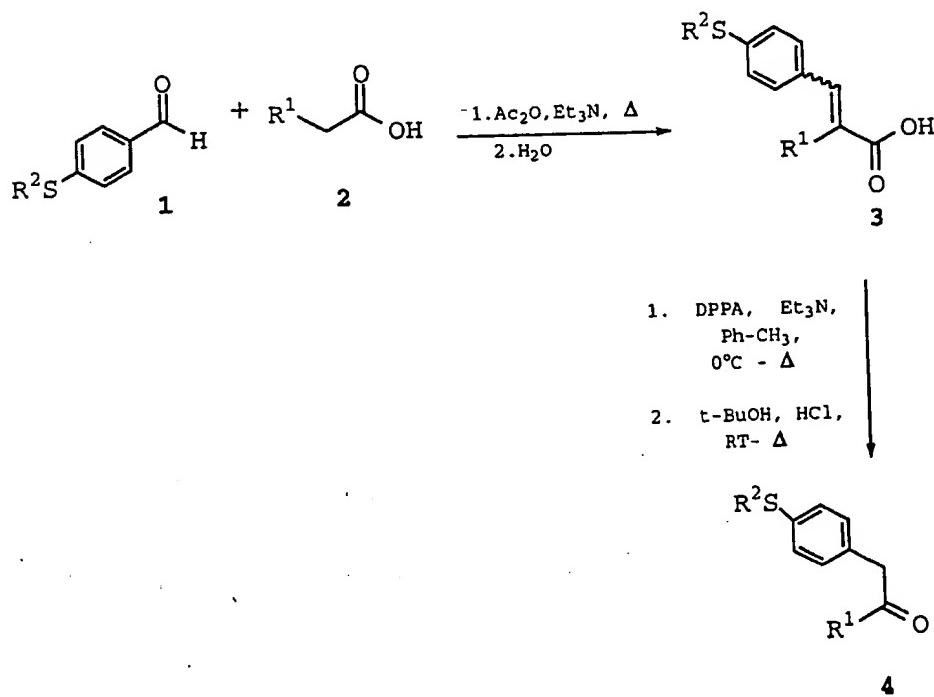
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GENERAL SYNTHETIC PROCEDURES

The compounds of the invention can be synthesized according to the following procedures of Schemes I-VIII, wherein the R-R² substituents are as defined for Formula I, above, except where further noted.

10

Scheme I



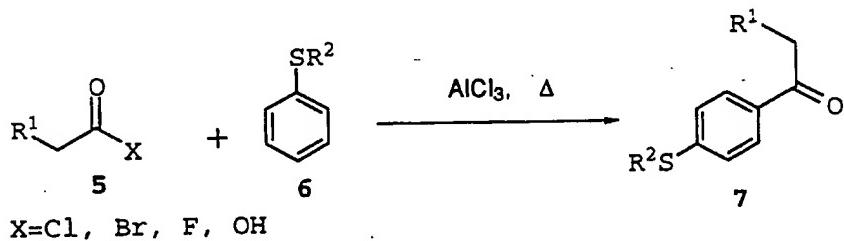
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Synthetic Scheme I shows the four step procedure which can be used to prepare the substituted ketone compounds 4 from the substituted benzaldehyde 1 and acid 2, where R^2 is alkyl. In step one, benzaldehyde 1 and substituted acetic acid 2 are first heated in acetic anhydride and triethylamine via a Perkin condensation. In step two, hydrolysis produces the corresponding 2,3-disubstituted acrylic

20

acids 3. In step three, the acrylic acids 3 are reacted with diphenylphosphorylazide (DPPA) and triethylamine in toluene at 0°C and then warmed to room temperature to form acylazides. In step four, 5 the crude acylazides are heated to form an isocyanate via a Curtius rearrangement. The isocyanate is trapped as the N-t-butylloxycarbonyl enamine derivative via the addition of tert-butanol. Acidic hydrolysis, such as by using concentrated HCl, provides the 10 substituted ketone 4 intermediates.

Scheme II



15

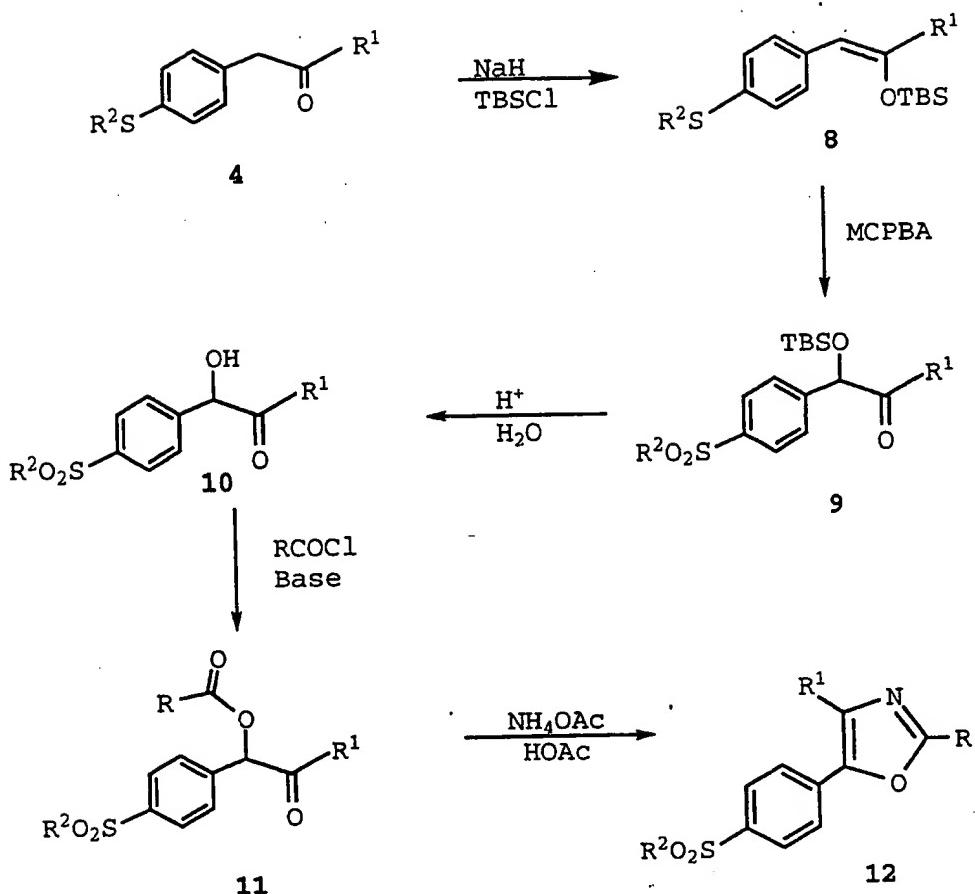
Synthetic Scheme II shows an alternative approach which can be used to prepare substituted ketone intermediates 7, isomers of 4 where R² is alkyl, via the use of Friedel-Crafts acylation. An 20 acylating agent 5, such as an acid chloride, is treated with aluminum chloride in an inert solvent, such as methylene chloride, chloroform, nitrobenzene, dichlorobenzene or chlorobenzene, and reacted with alkylthiobenzene 6 to form ketone 7.

25

Other synthetic approaches are possible to form the desired ketones. These alternatives include reacting appropriate Grignard or lithium reagents with substituted acetic acids or corresponding esters.

30

Scheme III

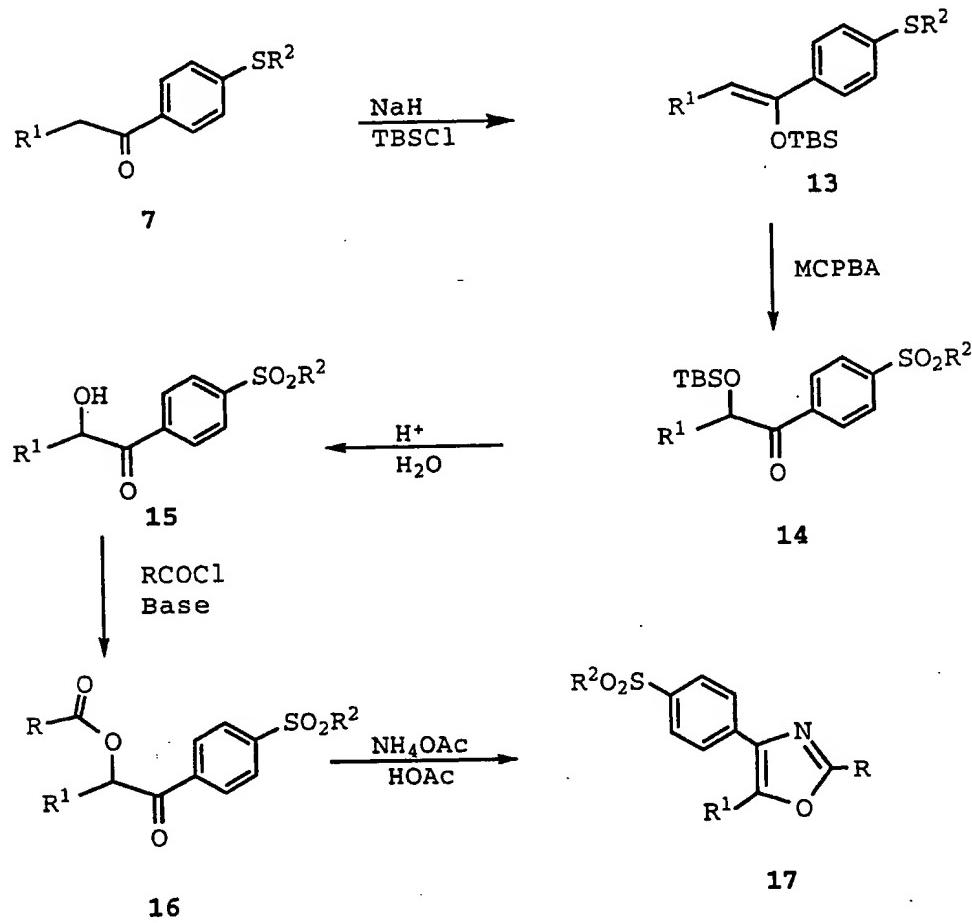


5 TBSCl is tert-butyl-dimethylsilyl chloride
MCPBA is *m*-chloroperoxybenzoic acid.

Scheme III shows the five step synthesis, as described in U.S. Patent No. 3,647,858, which can 10 be used to prepare the 5-(4-alkylsulfonylphenyl)oxazoles 12 of Formula I from ketone 4 (prepared in Scheme I). Preparation of the silyl enol ether 8 is followed by oxidation, such as with *m*-chloroperbenzoic acid, to give the appropriate 15 silylated benzoin 9. Desilylation of this silylated benzoin 9 is achieved using aqueous acid, such as trifluoroacetic acid, to give the desired benzoin 10. Reaction of the benzoin 10 with the appropriate acid

chloride in the presence of base, such as pyridine,
gives the benzoin esters 11 which may be converted to
the antiinflammatory oxazoles 12 of the present
invention upon treatment with ammonium acetate in
5 acetic acid at reflux.

Scheme IV

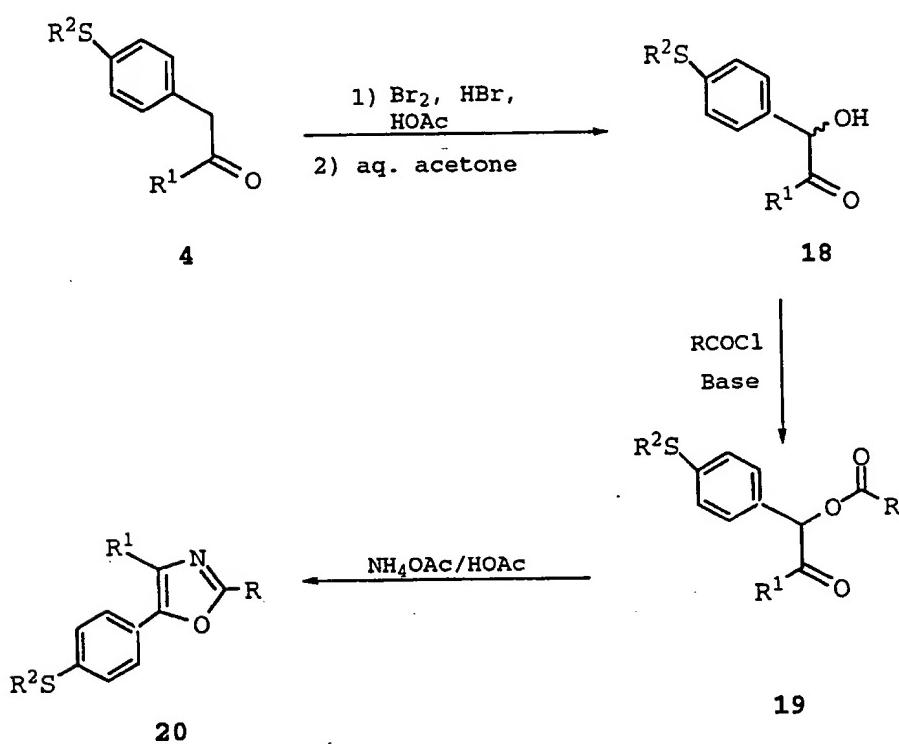


10

Scheme IV shows the five step synthesis, similar to that described above in Scheme III, which can be used to prepare the 4-(4-alkylsulfonylphenyl) oxazoles 17 of Formula I from ketone 7 (prepared in Scheme II). Preparation of the silyl enol ether 13 is followed by oxidation, such as with *m*-chloroperbenzoic acid, to give the appropriate silylated benzoin 14. Desilylation of this silylated

benzoin 14 is achieved using aqueous acid, such as trifluoroacetic acid to give the desired benzoin 15. Reaction of the benzoin 15 with the appropriate acid chloride in the presence of base, such as pyridine, 5 gives the benzoin esters 16 which may be converted to the antiinflammatory oxazoles 17 of the present invention upon treatment with ammonium acetate in acetic acid at reflux.

10

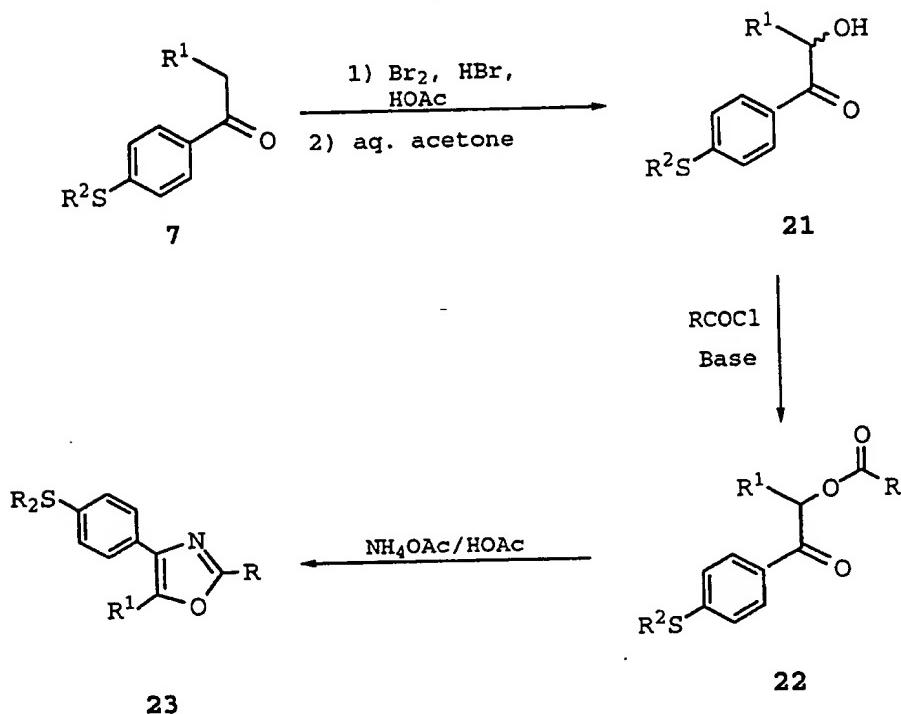
Scheme V

Scheme V shows the four step synthesis 15 which can be used to prepare oxazoles 20 from ketones 4 (prepared in Synthetic Scheme I). In step one, ketones 4 are readily brominated via the addition of bromine in acetic acid to form the 2-bromoethanone intermediates. In step two, reaction of the 20 bromoethanone with aqueous acetone yields the benzoin 18. In step three, reaction of the benzoin 18 with the appropriate acid chloride in the presence of

base, such as pyridine, gives the benzoin esters 19. In step four, benzoin esters 19 are converted to the oxazoles 20 upon treatment with ammonium acetate in acetic acid at reflux.

5

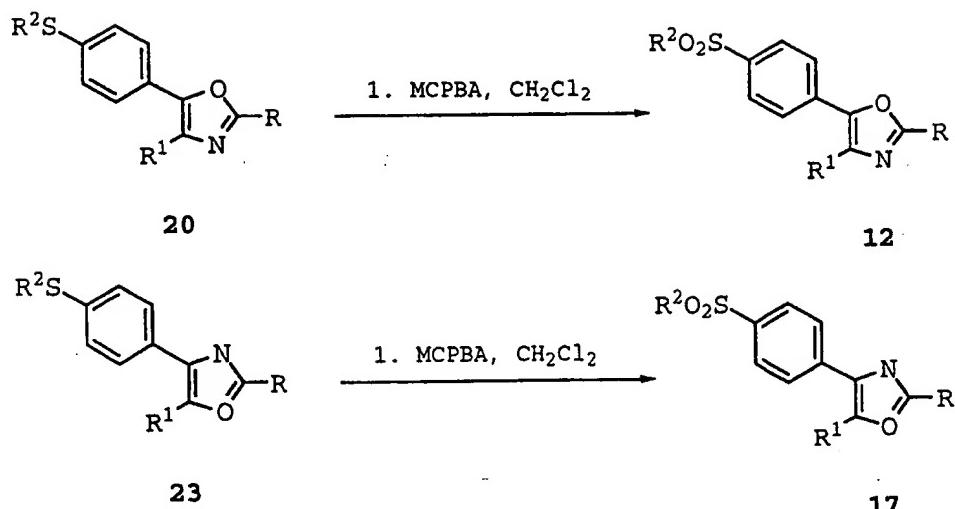
Scheme VI



10 Similarly, Scheme VI shows the four step synthesis which can be used to prepare oxazoles 23 from ketones 7 (prepared in Synthetic Scheme II). In step one, ketones 7 are readily brominated via the addition of bromine in acetic acid to form the 2-bromoethanone intermediates. In step two, reaction of the bromoethanone with aqueous acetone yields the benzoin 21. In step three, reaction of the benzoin 21 with the appropriate acid chloride in the presence of base, such as pyridine, gives the benzoin esters 22. 15 In step four, benzoin esters 22 are converted to the oxazoles 23 upon treatment with ammonium acetate in acetic acid at reflux.

20

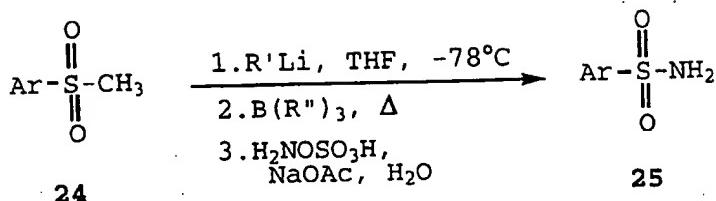
Scheme VII



5

An alternative synthesis of the alkylsulfonylphenyloxazoles 12 and 17 is accomplished as shown in Synthetic Scheme VII from oxazoles 20 and 23 (prepared in Schemes V and VI). Oxazoles 20 and 10 23, where R^2 is an alkyl radical, are oxidized, such as with MCPBA (2 equivalents) in methylene chloride to form the antiinflammatory alkylsulfonyl oxazoles 12 and 17. Other suitable oxidizing agents include Oxone®, hydrogen peroxide, periodate, peracetic acid 15 and the like.

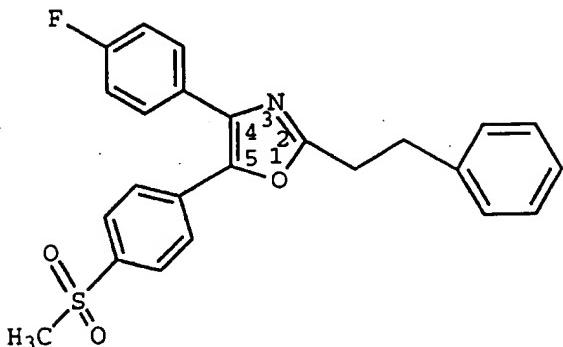
Scheme VIII



5 Synthetic Scheme VIII shows the three step procedure used to prepare sulfonamide antiinflammatory agents 25 from their corresponding methyl sulfones 24. In step one, a THF solution of the methyl sulfones 24 at -78°C is treated with an 10 alkylolithium reagent, e.g., methylolithium, n- butyllithium, etc. In step two, the anions generated in step one are treated with an organoborane, e.g., triethylborane, tributylborane, etc., at -78°C then allowed to warm to ambient temperature prior to 15 stirring at reflux. In step three, an aqueous solution of sodium acetate and hydroxyamine-O-sulfonic acid is added to provide the corresponding sulfonamide antiinflammatory agents 25 of this invention.

20 The following examples contain detailed descriptions of the methods of preparation of compounds of Formula I. These detailed descriptions fall within the scope, and serve to exemplify, the 25 above described General Synthetic Procedures which form part of the invention. These detailed descriptions are presented for illustrative purposes only and are not intended as a restriction on the scope of the invention. All parts are by weight and 30 temperatures are in Degrees centigrade unless otherwise indicated.

EXAMPLE 1



5

4-(4-Fluorophenyl)-2-(2-phenylethyl)-5-(4-methylsulfonyl)phenyl)oxazole

Step 1: Preparation of 1-(4-fluorophenyl)-2-hydroxy-2-(methylsulfonyl)phenyl)ethanone
10

A suspension of 2.03 g sodium hydride in 125 mL tetrahydrofuran (THF) was stirred at 0°C under a nitrogen atmosphere as a solution containing 20.0 g 15 of 1-(4-fluorophenyl)-2-[4-(methylthio)phenyl]ethanone, as prepared in U.S. Patent No. 3,647,858, in 100 mL of THF was added dropwise over 30 minutes. The reaction was allowed to warm to 25°C for 18 hours. A solution containing 20 12.7 g (84.5 mmol) of tert-butyl-dimethylsilyl chloride (DBSCL) in 20 mL THF was added over 5 minutes and the resulting solution stirred at 25°C for 18 hours. The reaction was quenched by pouring into aqueous sodium bicarbonate. The mixture was 25 extracted with ethyl acetate and the combined organic extracts dried over sodium sulfate. Concentration in vacuo provides a yellow oil, which solidified on standing to give 27.9 g of the silyl enol ether. NMR spectra was consistent with the assigned structure.

The silyl enol ether was used without further purification.

A solution containing 27.9 g of the silyl enol ether in 500 mL methylene chloride (CH_2Cl_2) was cooled to 0°C under a nitrogen atmosphere while being stirred mechanically. 77.1g of *m*-chloroperoxybenzoic acid (technical grade, 50-60%) was added and the reaction was stirred at 0°C for 2 hours and allowed to warm to 25°C over 1 hour. The reaction mixture was washed with an aqueous solution of sodium metabisulfite, followed by aqueous sodium bicarbonate. The organic solution was dried over sodium sulfate and concentrated in vacuo to give 24.5 g of 1-(4-fluorophenyl)-2-tert-butyldimethylsilyloxy-2-[4-(methylsulfonyl)phenyl]ethanone. NMR spectra were consistent with the assigned structure. This material was used without further purification.

The benzoin silyl ether was dissolved in 100 mL of 90% aqueous trifluoroacetic acid and stirred at 25°C for 18 hours. The reaction was quenched by slowly pouring into saturated aqueous sodium bicarbonate solution. The product was extracted with ethyl acetate and the combined organic extracts were dried over sodium sulfate. Concentration in vacuo provided an oily solid, which was recrystallized from 50% ethyl acetate/isooctane to give 15.5 g of a crystalline white solid (mp 122-123°C) whose structure was assigned as 1-(4-fluorophenyl)-2-hydroxy-2-(methylsulfonyl)phenyl)ethanone on the basis of its spectral properties.

The isomeric benzoin, 2-(4-fluorophenyl)-2-hydroxy-1-(4-(methylsulfonyl)phenyl)ethanone, was

prepared analogously from 2-(4-fluorophenyl)-1-[4-(methylthio)phenyl]ethanone.

5 Step 2: Preparation of 4-(4-fluorophenyl)-2-(2-phenylethyl)-5-(4-(methylsulfonyl)phenyl)oxazole.

A solution containing 5.00 g of 1-(4-fluorophenyl)-2-hydroxy-2-(4-(methylsulfonyl)phenyl)ethanone in 100 mL methylene chloride (CH_2Cl_2) was stirred at 25°C as 6.60 mL of pyridine was added, followed by 3.61 mL of hydrocinnamoyl chloride.

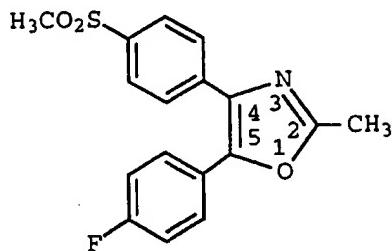
15 The reaction was stirred at 25°C for 48 hours, after which the organic solution was washed with 1N HCl, dried over sodium sulfate and concentrated in vacuo to give an oily solid. This material was recrystallized from 50% ethyl acetate/isooctane to give 4.40 g of a beige crystalline solid (mp 152-153.5°C). NMR spectra were consistent with the assigned structure of 1-(4-fluorophenyl)-2-[4-(methylsulfonyl)phenyl]-2-(2-phenyl)propionyloxy ethanone. This material was dissolved in 100 mL of glacial acetic acid and 7.70 g of ammonium acetate was added. The reaction was heated to reflux with stirring for 1.5 hours, after which it was cooled to room temperature and poured into 100 mL of water. The product was extracted with ethyl acetate and the combined organic extracts washed with aqueous sodium bicarbonate, dried over sodium sulfate and concentrated in vacuo to give an oily solid which was recrystallized from 50% ethyl acetate/isooctane to give 3.55 g of 4-(4-fluorophenyl)-2-(2-phenylethyl)-5-(4-(methylsulfonyl)phenyl)oxazole as a white crystalline solid (mp 117-

64

118°C). NMR spectra was consistent with the assigned structure.

EXAMPLE 2

5



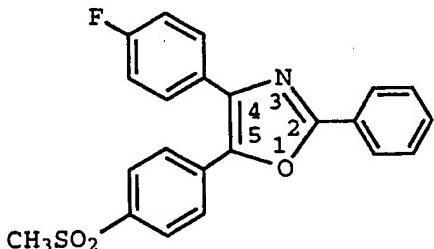
4-(4-Fluorophenyl)-2-methyl-5-[4-(methylsulfonyl)phenyl]oxazole

10

4-(4-Fluorophenyl)-2-methyl-5-[4-(methylsulfonyl)phenyl]oxazole was prepared in an analogous manner from 2-(4-fluorophenyl)-1-[4-(methylthio)phenyl]ethanone. Melting point: 158-159°C.

15

EXAMPLE 3



20

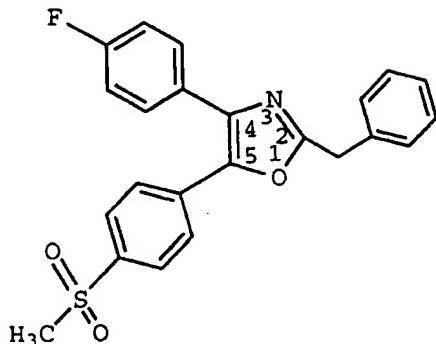
4-(4-Fluorophenyl)-5-[4-(methylsulfonyl)phenyl]-2-phenyloxazole

4-(4-Fluorophenyl)-5-[4-(methylsulfonyl)phenyl]-2-phenyloxazole was prepared in a manner analogous to Example 1. Melting point: 204-205°C.

25

65

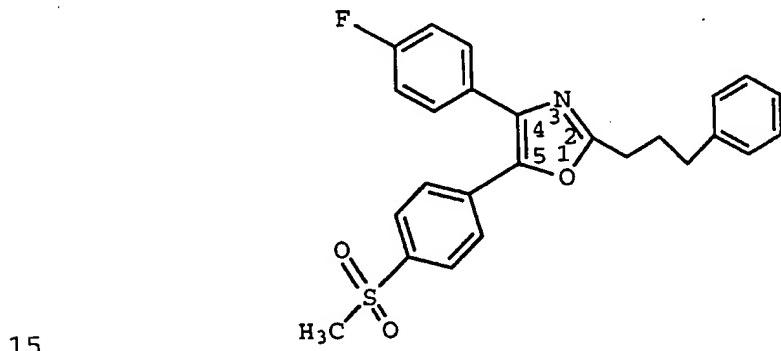
EXAMPLE 4



5 **2-Benzyl-4-(4-fluorophenyl)-5-(4-methylsulfonyl)phenyloxazole**

2-Benzyl-4-(4-fluorophenyl)-5-(4-methylsulfonyl)phenyloxazole was prepared in a
10 manner analogous to Example 1. The m/z 408 ($M+H$)⁺
was consistent with the assigned structure.

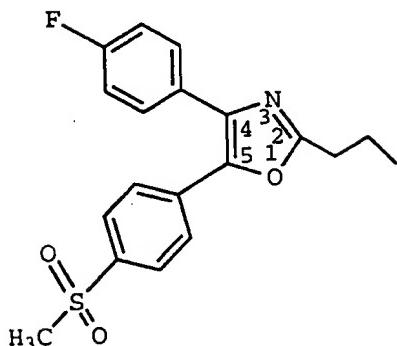
EXAMPLE 5



15 **4-(4-Fluorophenyl)-5-[4-methylsulfonylphenyl]-2-(3-phenylpropyl)oxazole**

20 4-(4-Fluorophenyl)-5-[4-methylsulfonylphenyl]-2-(3-phenylpropyl)oxazole was prepared in a
manner analogous to Example 1. The m/z 436 ($M+H$)⁺
was consistent with the assigned structure.

EXAMPLE 6



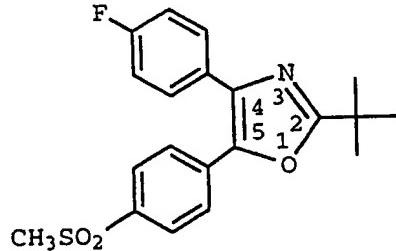
5

4-(4-Fluorophenyl)-5-[4-methylsulfonylphenyl]-
2-propyloxazole

10 4-(4-Fluorophenyl)-5-[4-methylsulfonylphenyl]-2-propyloxazole was prepared in a manner analogous to Example 1. The m/z 360 ($M+H$)⁺ was consistent with the assigned structure.

EXAMPLE 7

15

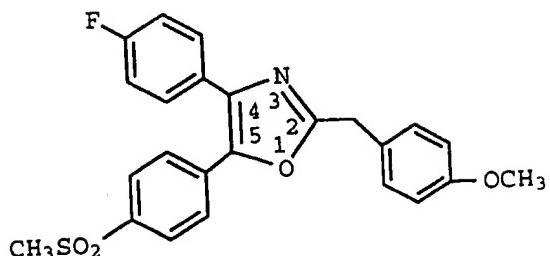


20 2-(Tert-butyl)-4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazole

20 2-(Tert-butyl)-4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazole was prepared in a manner analogous to Example 1. Melting point: 130-131°C.

25

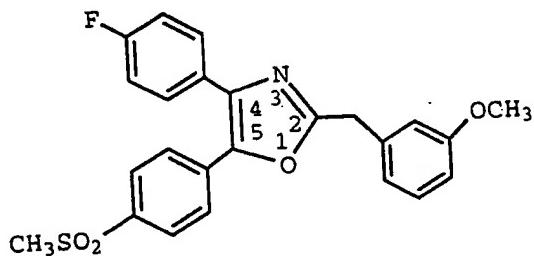
EXAMPLE 8



5 4-(4-Fluorophenyl)-2-(4-methoxyphenyl)methyl-
5-[4-methylsulfonylphenyl]oxazole

10 4-(4-Fluorophenyl)-2-(4-methoxyphenyl)methyl-
5-[4-methylsulfonylphenyl]oxazole was prepared in a
manner analogous to Example 1. Melting point: 123-
124°C.

EXAMPLE 9

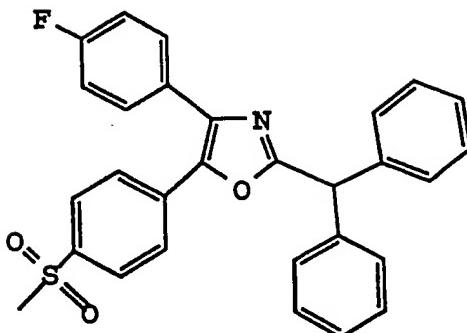


15 4-(4-Fluorophenyl)-2-(3-methoxyphenyl)methyl-
5-[4-methylsulfonylphenyl]oxazole

20 4-(4-Fluorophenyl)-2-(3-methoxyphenyl)methyl-
5-[4-methylsulfonylphenyl]oxazole was prepared in a
manner analogous to Example 1. The m/z 437 ($M+H$)⁺
was consistent with the assigned structure.

68

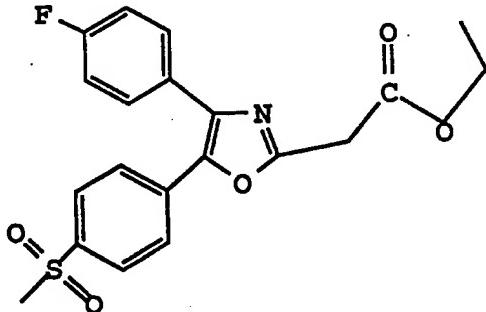
EXAMPLE 10



5 **2-Diphenylmethyl-4-(4-fluorophenyl)-
5-[4-methylsulfonylphenyl]oxazole**

10 2-Diphenylmethyl-4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]oxazole was prepared in a manner analogous to Example 1. Melting point: 155-156°C.

EXAMPLE 11

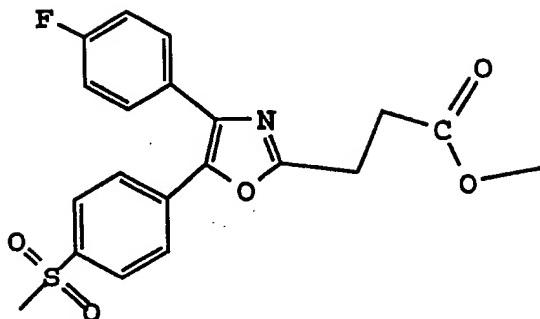


15 **Ethyl 2-[4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)oxazol-2-yl]acetate**

20 Ethyl 2-[4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)oxazol-2-yl]acetate was prepared in a manner analogous to Example 1. Melting point: 123-124°C.

69

EXAMPLE 12

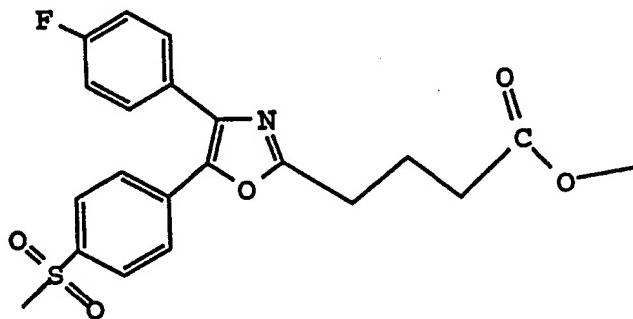


5 Methyl 3-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]oxazol-2-yl]propanate

Methyl 3-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]oxazol-2-yl]propanate was
10 prepared in a manner analogous to Example 1. The m/z
404 ($M+H$)⁺ was consistent with the assigned
structure.

EXAMPLE 13

15

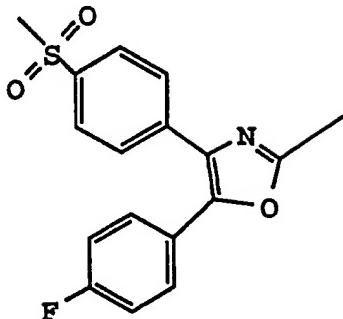


Methyl 4-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]oxazol-2-yl]butanate

20

Methyl 4-[4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]oxazol-2-yl]butanate was
prepared in a manner analogous to Example 1. Melting
point: 89-91°C.

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EXAMPLE 14

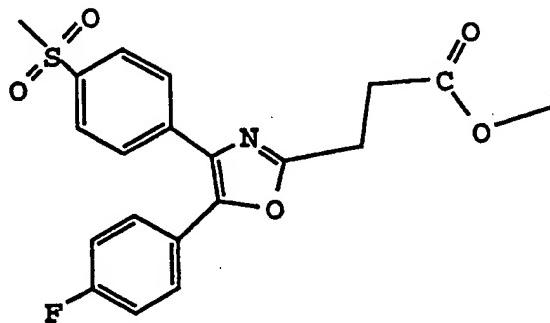
5

5-(4-Fluorophenyl)-2-methyl-4-[4-(methylsulfonyl)phenyl]oxazole

10 5-(4-Fluorophenyl)-2-methyl-4-[4-(methylsulfonyl)phenyl]oxazole was prepared in a manner analogous to Example 1. The m/z 332 ($M+H$)⁺ was consistent with the assigned structure.

EXAMPLE 15

15



Methyl 3-[5-(4-fluorophenyl)-4-[4-(methylsulfonyl)phenyl]oxazol-2-yl]propanate

20

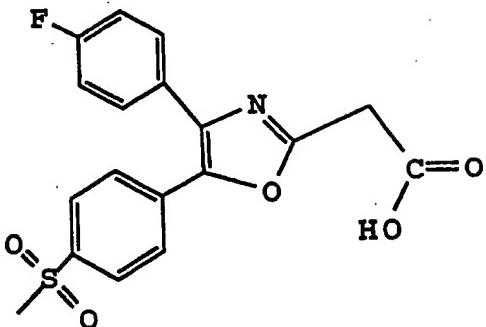
Methyl 3-[5-(4-fluorophenyl)-4-[4-(methylsulfonyl)phenyl]oxazol-2-yl]propanate was prepared in a manner analogous to Example 1. The m/z

71

404 ($M+H$)⁺ was consistent with the assigned structure.

EXAMPLE 16

5



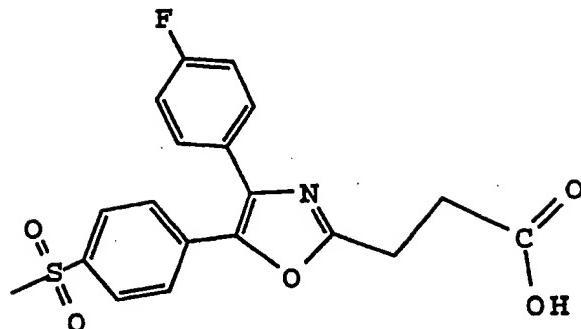
10

2-[4-(4-Fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]acetic acid

15

2-[4-(4-Fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]acetic acid was prepared from Example 11 via alkaline hydrolysis using 1 N sodium hydroxide in methanol and appropriate reaction conditions. Melting point: 118-120°C.

EXAMPLE 17

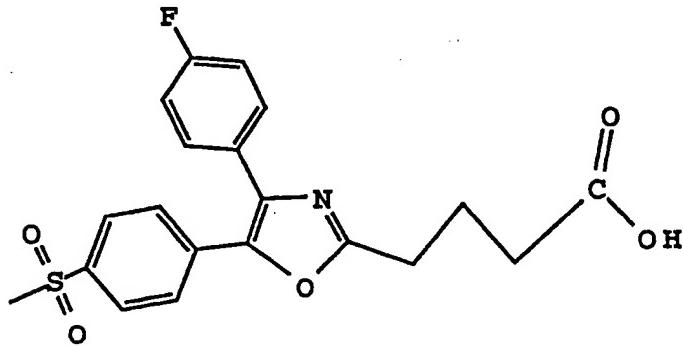


5 3-[4-(4-Fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]propanoic acid

10 3-[4-(4-Fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]propanoic acid was prepared from Example 12 in a manner analogous to Example 17. Melting point: 197-198°C. The m/z 390 ($M+H$)⁺ was consistent with the assigned structure.

15

EXAMPLE 18

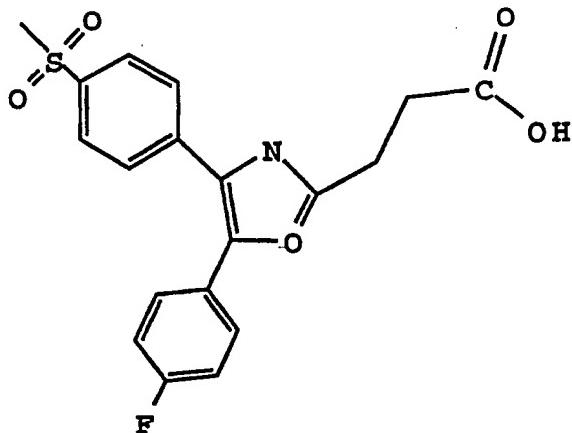


20 4-[4-(4-Fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]butanoic acid

73

4-[4-(4-Fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]butanoic acid was prepared from Example 13 in a manner analogous to Example 17. Melting point: 140-141°C. The m/z 404 ($M+H$)⁺ was consistent with the assigned structure.

EXAMPLE 19



10

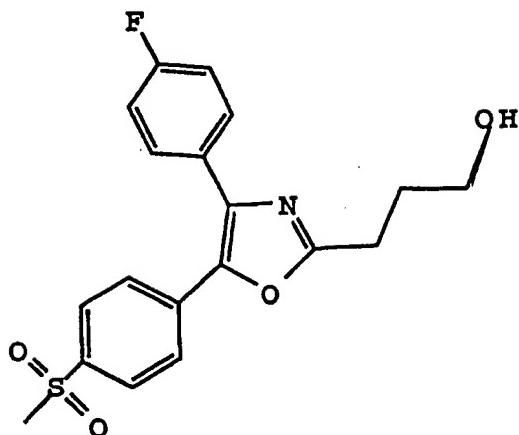
3-[5-(4-Fluorophenyl)-4-[4-(methylsulfonyl)phenyl]oxazol-2-yl]propanoic acid

15

3-[5-(4-Fluorophenyl)-4-[4-(methylsulfonyl)phenyl]oxazol-2-yl]propanoic acid was prepared from Example 15 in a manner analogous to Example 17. The m/z 390 ($M+H$)⁺ was consistent with the assigned structure.

20

EXAMPLE 20



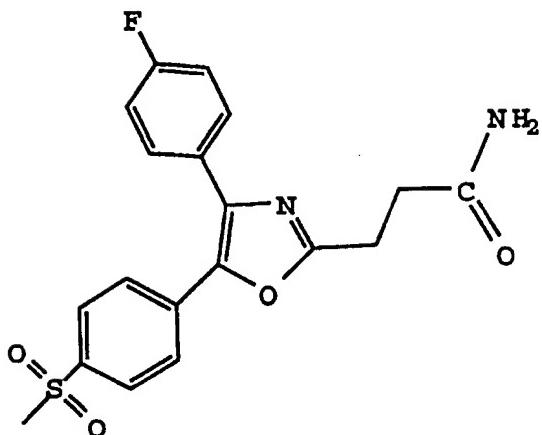
5 4-(4-fluorophenyl)-2-(3-hydroxypropyl)-5-[4-(methylsulfonyl)phenyl]oxazole

A solution containing 100 mg (0.239 mmol) of 3-[4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]propanoic acid, methyl ester in 10 mL of tetrahydrofuran was cooled to 0°C with stirring under a nitrogen atmosphere as 0.53 mL of diisobutylaluminum hydride (1M in toluene, 0.523 mmol) was added dropwise over 5 minutes. The reaction was allowed to warm to 25°C and poured into 100 mL of a saturated solution of sodium potassium tartarate. Ethyl acetate (100 mL) was added and the mixture was stirred until the layers separated (approx. 1 hour). The organic layer was separated and dried over sodium sulfate. Concentration in vacuo gave an oily solid, which was recrystallized from 50 % ethyl acetate-isooctane to give 75 mg of a white crystalline solid (mp 123-124°C) which was characterized on the basis of its spectral characteristics: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 2.10 (m, 2H), 2.56 (bs, 1H), 3.01 (t, 2H, $J=7.0$ Hz), 3.07 (s, 3H), 3.80 (t, 2H, $J=5.9$ Hz), 7.09 (t, 2H, $J=8.5$ Hz), 7.57 (dd, 2H, $J=8.5$ and 5.5 Hz), 7.73 (d, 2H, $J=8.5$

75

Hz) and 7.89 (d, 2H, J=8.5 Hz). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -111.97. LRMS m/z 376 ($M + H$)⁺. HRMS calc. for $\text{C}_{19}\text{H}_{18}\text{NO}_4\text{FS}$: 376.1019. Observed: 376.1026. Analysis calc. for $\text{C}_{19}\text{H}_{18}\text{NO}_4\text{FS-C}$: 60.79, H: 4.83, N: 5 3.73. Observed-C: 60.53, H: 4.85, N: 3.66.

EXAMPLE 21

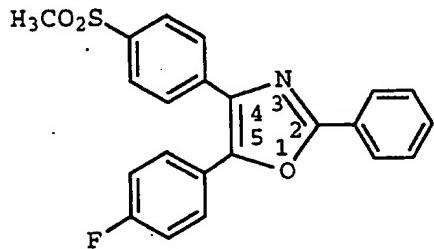


5 3-[4-(4-fluorophenyl)-5-(methylsulfonyl)phenyl]oxazol-2-yl propanamide

10 3-[4-(4-fluorophenyl)-5-(methylsulfonyl)phenyl]oxazol-2-yl propanamide was prepared by
treating methyl 3-[4-(4-fluorophenyl)-5-(methylsulfonyl)phenyl]oxazol-2-yl propanoic acid,
(Example 12) with excess ammonia in methanol for 5
days. Melting point: 193-195°C.

15

EXAMPLE 22



20 5-(4-Fluorophenyl)-2-phenyl-4-[4-(methylsulfonyl)phenyl]oxazole

Step 1: Preparation of 5-(Fluorophenyl)-4-[4-(methylthio)phenyl]-2-phenyloxazole

A solution containing 560 mg (2.03 mmol) of
5 2-(4-fluorophenyl)-2-hydroxy-1-[4-(methylthio)phenyl] ethanone in 50 mL of methylene chloride was stirred at 25°C as 0.82 mL (10.15 mmol) of pyridine was added, followed by 0.28 mL (2.44 mmol) of benzoyl chloride.
The reaction was stirred at 25°C for 2 days, after
10 which it was washed with 1N HCl, dried over sodium sulfate and concentrated in vacuo to give a crude oil which was characterized as the benzoin ester on the basis of its spectral characteristics: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 2.53 (s, 3H), 7.08 (s, 1H), 7.12 (t, 2H, J=8.7 Hz), 7.27 (d, 2H, J=8.7 Hz), 7.49 (t, 2H, J=7.7 Hz), 7.60 (m, 3H), 7.94 (d, 2H, J=8.7 Hz) and 8.14 (d, 2H, J=8.7 Hz). This material was dissolved in 50 mL of glacial acetic acid and 1.56 g (20.3 mmol) of ammonium acetate was added. The reaction was heated
15 at reflux for 2 hours, cooled to 25°C and poured into 100 mL of water. The aqueous solution was extracted with ethyl acetate and the combined organic extracts were washed with water and sodium bicarbonate solution, dried over sodium sulfate and concentrated
20 in vacuo. The crude solid was purified by flash chromatography using a silica gel column and 50% ethyl acetate/hexane as the eluent to give a white solid which was recrystallized from 50% ethyl acetate/isooctane to give 450 mg (61%) of a white
25 crystalline solid (mp 118-119°C) whose structure was assigned as 5-(4-fluorophenyl)-4-[4-(methylthio)phenyl]-2-phenyl oxazole on the basis of its spectral characteristics: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 2.52 (s, 3H), 7.10 (t, 2H, J=8.8 Hz), 7.28 (d, 2H, J=8.5 Hz),
30 7.47 (m, 3H), 7.62 (m, 4H) and 8.13 (m, 2H). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -111.96. LRMS m/z 361 (M)+. HRMS Calc'd. for $\text{C}_{22}\text{H}_{16}\text{NOFS}$: 361.0937. Observed: 361.0970.

Analysis Calc'd. for C₂₂H₁₆NOFS: C, 71.51; H, 6.55; N, 3.79. Observed: C, 72.85; H, 4.52; N, 3.84.

5 Step 2: Preparation of 5-(4-Fluorophenyl)-4-[4-(methylsulfinyl)phenyl]2-phenyloxazole.

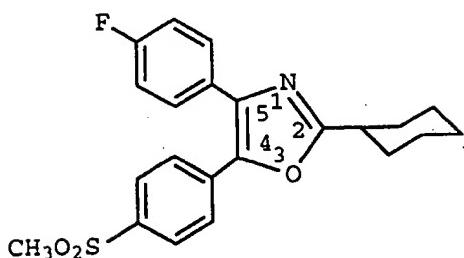
A solution containing 64 mg (0.173 mmol) of 5-(4-fluorophenyl)-4-[4-(methylthio)phenyl]-2-phenyloxazole in 10 mL of methylene chloride was 10 stirred at -78°C as 60 mg (0.173 mmol based on 50% purity) of m-chloroperoxybenzoic acid was added all at once. The reaction was stirred at -78°C for 1 hour. Thin-layer chromatography (TLC) (silica, 50% hexane-ethyl acetate) indicated that the reaction mixture 15 consisted of mostly sulfoxide, with a minor amount of sulfide and sulfone. The reaction was poured into a solution of aqueous sodium metabisulfite. The aqueous solution was extracted using ethyl acetate and the organic layer was washed with saturated sodium 20 metabisulfite, saturated sodium bicarbonate and brine. The resulting clear solution was dried over sodium sulfate and concentrated in vacuo to give a white solid which was purified by flash chromatography on a silica gel column using 50% ethyl acetate/hexane as 25 the eluent. Recrystallization from 50% ethyl acetate/isooctane gave 48 mg (74%) of a white crystalline solid (mp 164-165°C) whose structure was assigned as 5-(4-fluorophenyl)-4-[4-(methylsulfinyl)phenyl]-2-phenyl oxazole on the basis 30 of its spectral characteristics: ¹H-NMR (CDCl₃, 300 MHz) δ 2.80 (s, 3H), 7.16 (t, 2H, J=8.5 Hz), 7.54 (m, 3H), 7.66-7.75 (m, 4H); 7.93 (d, 2H, J=8.5 Hz) and 8.19 (m, 2H). LRMS m/z 377 (M)⁺. HRMS Calc'd. for C₂₂H₁₆NO₂FS: 377.0886. Observed: 377.0868. Analysis 35 Calc'd. for C₂₂H₁₆NO₂FS: C, 70.01; H, 4.27; N, 3.71. Observed: C, 68.18; H, 4.19; N, 3.58.

Step 3: Preparation of 5-(4-Fluorophenyl)-4-[4-(methylsulfonyl)phenyl]-2-phenyloxazole.

A solution containing 64 mg (0.173 mmol) of
5 5-(4-fluorophenyl)-4-[4-(methylthio)phenyl]-2-
phenyloxazole in 10 mL of methylene chloride was
stirred at -78 °C as 120 mg (0.346 mmol based on 50%
purity) of *m*-chloroperoxybenzoic acid was added all at
once. The reaction was stirred at -78 °C for 1 hour
10 and TLC (silica, 50% hexane-ethyl acetate) indicated
that the reaction mixture consisted of mostly sulfone.
The reaction was poured into a solution of aqueous
sodium metabisulfite. The aqueous solution was
extracted using ethyl acetate and the organic layer
15 was washed with saturated sodium metabisulfite,
saturated sodium bicarbonate and brine. The resulting
clear solution was dried over sodium sulfate and
concentrated in vacuo to give a white solid which was
purified by flash chromatography on a silica gel
20 column using 50% ethyl acetate/hexane as the eluent.
Recrystallization from 50% dichloromethane/isooctane
gave 62 mg (91%) of a white crystalline solid (mp 175-
176°C) whose structure was assigned as 5-(4-
fluorophenyl)-4-[4-(methylsulfonyl)phenyl]-2-phenyl
25 oxazole on the basis of its spectral characteristics:
 $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 3.13 (s, 3H), 7.19 (t, 2H,
 $J=8.6$ Hz), 7.55 (m, 3H), 7.69 (m, 2H), 8.00 (m, 2H),
8.17 (m, 2H). LRMS m/z 393 (M)+. HRMS Calc'd. for
 $\text{C}_{22}\text{H}_{16}\text{NO}_3\text{FS}$: 393.0835. Observed: 393.0865.

80

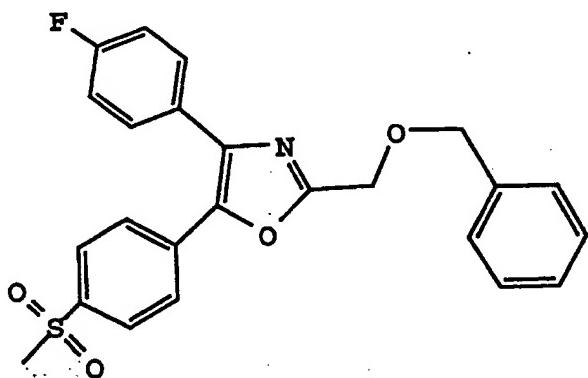
EXAMPLE 23



5 4-(4-Fluorophenyl)-2-cyclohexyl-5-[4-(methylsulfonyl)phenyl]oxazole

10 4-(4-Fluorophenyl)-2-cyclohexyl-5-[4-(methylsulfonyl)phenyl]oxazole was prepared in a manner analogous to Example 1. Melting point: 127-128°C.

EXAMPLE 24



15

4-(4-Fluorophenyl)-2-benzylloxymethyl-5-[4-(methylsulfonyl)phenyl]oxazole

20 Step 1: Preparation of the benzoin ester

A solution containing 2.07 g (6.71 mmol) of 1-(4-fluorophenyl)-2-hydroxy-2-[4-(methylsulfonyl)phenyl]ethanone in 100 mL of methylene

chloride was stirred at 25°C as 2.71 mL (33.55 mmol) of pyridine was added, followed by the addition of 1.27 mL (8.05 mmol) of benzyloxyacetyl chloride. The reaction was stirred at 25°C for 48 hours, after which 5 the resulting yellow solution was washed with 1N HCl, dried over sodium sulfate and concentrated in vacuo. The oily yellow solid was purified via flash chromatography on a silica gel column using 20 % ethyl acetate/hexane as the eluent. This provided 2.22 g 10 (73 %) of a white foam, which was characterized as the benzoin ester on the basis of its NMR spectra: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 3.03 (s, 3H), 4.23 (d, 1H, $J=17.0$ Hz), 4.33 (d, 1H, $J=17.0$ Hz), 4.67 (s, 2H), 6.95 (s, 1H), 7.13 (t, 2H, $J=8.5$ Hz), 7.35 (m, 5H), 7.66 (d, 2H, $J=8.1$ Hz) and 7.98 (m, 4H). $^{19}\text{F-NMR}$ (CDCl_3 , 280 15 MHz) δ -102.5.

Step 2: Preparation of 2-benzyloxymethyl-4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazole.

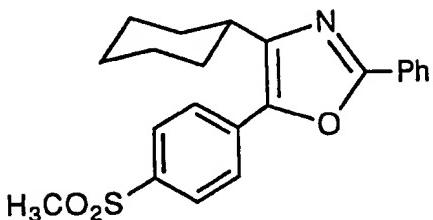
A solution containing 2.22 g (4.86 mmol) of the benzoin ester and 3.74 g (48.6 mmol) of ammonium acetate in 100 mL of acetic acid was heated to 80°C 25 for 2 hours. The reaction was cooled to 25°C and poured into water. The product was extracted into ethyl acetate and the combined organic extracts washed with an aqueous solution of sodium bicarbonate. The solution was dried over sodium sulfate and 30 concentrated in vacuo to give a yellow oil. This crude material was purified by flash chromatography on a silica gel column using 25 % ethyl acetate/hexane as the eluent to give 1.92 g (90%) of a clear oil, which was characterized as 2-benzyloxymethyl-4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazole on 35 the basis of its spectral properties: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 3.07 (s, 3H), 4.70 (s, 2H), 4.72 (s, 2H),

82

7.11 (t, 2H, $J=8.8$ Hz), 7.22-7.40 (m, 5H), 7.58 (m, 2H), 7.76 (d, 2H, $J=8.8$ Hz) and 7.91 (d, 2H, $J=8.8$ Hz). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -111.88.

5

EXAMPLE 25



10 (methylsulfonyl)phenyl]oxazole

10 (methylsulfonyl)phenyl]oxazole

Step 1: Preparation of 1-(cyclohexyl)-2-hydroxy-2-[4-(methylthiophenyl)ethanone

15 A 250 mL round bottomed flask was equipped
with a mechanical stirrer and reflux condenser and
charged with 30 mL of absolute ethanol, 3,4-dimethyl-
5-(2-hydroxyethyl)thiazolium iodide (2.00 g, 7.0
mmol), 4-methylthiobenzaldehyde (10.66 g, 70.0 mmol),
20 and freshly distilled cyclohexanecarboxaldehyde (7.68
g, 70.1 mmol). The solution was stirred vigorously,
treated with triethylamine (4.27 g, 42.2 mmol) and
heated to reflux for 24 hours. The solution was
treated with additional portions of 3,4-dimethyl-5-(2-
25 hydroxyethyl)thiazolium iodide (2.05 g, 7.01 mmol),
triethylamine (4.84 g, 48.0 mmol), and
cyclohexanecarboxaldehyde (7.01 g, 62.5 mmol), and
heated to reflux for an additional 42 hours. The
solution was concentrated in vacuo, the residue
30 dissolved in chloroform, washed with 3 N HCl,
saturated aqueous sodium bicarbonate, brine, dried
over anhydrous magnesium sulfate, filtered and
concentrated in vacuo to afford 18.75 g, (>100%) of a

yellow oil that solidified upon standing. The crude solid was purified by trituration with ether providing the desired compound in pure form 15.80 g, (86%, mp 110-111.5°C) which was characterized as 1-
5 (cyclohexyl)-2-hydroxy-2-[4-(methylthiophenyl)ethanone on the basis of its NMR spectra. $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 1.00-1.47 (m, 6H), 1.60-1.95 (m, 4H), 2.45 (m, 1H), 2.52 (s, 3H), 4.38 (d, $J=3.9$ Hz, 1H), 7.55 (d, $J=3.9$ Hz, 1H), 7.25 (m, 4H). HRMS Calc'd. for
10 $\text{C}_{15}\text{H}_{20}\text{NO}_2\text{S}$: 264.1184. Observed: 264.1207.

Step 2: Preparation of benzoin ester

A solution containing 162 mg (0.62 mmol) of
15 1-(cyclohexyl)-2-hydroxy-2-[4-(methylthiophenyl)ethanone in 10 mL of methylene chloride was stirred at 25°C as 251 μL (31 mmol) of pyridine was added, followed by the addition of 86 μL (1.24 mmol) of benzoyl chloride. The reaction was stirred at 25°C
20 for 48 hours, after which the resulting yellow solution was washed with 1N HCl, dried over sodium sulfate and concentrated in vacuo. The crude solid was purified via flash chromatography on a silica gel column using 10 % ethyl acetate/hexane as the eluent.
25 This provided 131 mg (57 %) of a white foam, which was characterized as the benzoin ester on the basis of its NMR spectra: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 1.03-1.48 (m, 6H), 1.56-1.88 (m, 3H), 2.03-2.14 (m, 1H), 2.48 (s, 3H), 2.53 (m, 1H), 6.28 (s, 1H), 7.20-7.70 (m, 5H),
30 8.05-8.17 (m, 4H).

Step 3: Preparation of 2-(phenyl)-4-(cyclohexyl)-5-[4-(methythio)phenyl]oxazole

35 A solution containing 131 mg (0.355 mmol) of the benzoin ester and 273 mg (35 mmol) of ammonium acetate in 10 mL of acetic acid was heated to 80°C for

2 hours. The reaction was cooled to 25°C and poured into water. The product was extracted into ethyl acetate and the combined organic extracts washed with an aqueous solution of sodium bicarbonate. The 5 solution was dried over sodium sulfate and concentrated in vacuo to give the crude oxazole. This crude material was purified crystallization from a mixture of dichloromethane and isooctane to give 89 mg, (72%, mp 151-151.5°C) of material, which was 10 characterized as 2-(phenyl)-4-(cyclohexyl)-5-[4-(methythio)phenyl]oxazole on the basis of its spectral properties: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 1.30-1.45 (m, 3H), 1.70-1.94 (m, 7H), 2.54 (s, 3H), 2.80-2.90 (m, 1H), 7.34 (d, $J=8.5\text{Hz}$, 2H), 7.42 (m, 3H), 7.55 (d, $J=8.5\text{Hz}$, 2H), 8.08 (d, $J=7.7\text{Hz}$, 2H). HRMS Calc'd. for 15 $\text{C}_{22}\text{H}_{23}\text{NOS}$ ($\text{M}+\text{H}$): 350.1579. Observed: 350.1597. The material from this experiment was used directly in the next step without further purification.

20 Step 4: Preparation of 2-phenyl-4-(cyclohexyl)-5-[4-(methylsulfonyl)phenyl]oxazole

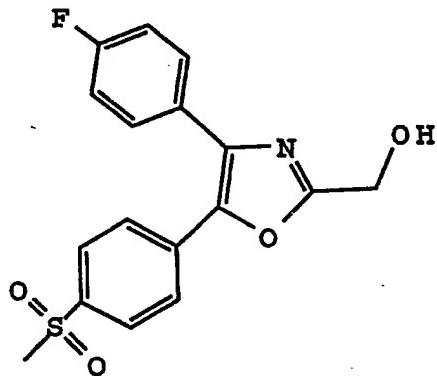
A solution of 38 mg (0.11 mmol) of 2-phenyl-4-(cyclohexyl)-5-[4-(methythio)phenyl]oxazole in 4 mL of 25 methylene chloride was stirred at -78°C as 75 mg (0.22 mmol based on 50% purity) of *m*-chloroperoxybenzoic acid was added all at once. The reaction was stirred at -78°C for 1 hour. Thin-layer chromatography (TLC) (silica, 50% hexane/ethyl acetate) indicated the 30 reaction mixture consisted of mostly sulfone. The reaction was poured into a solution of aqueous sodium metabisulfite. The aqueous solution was extracted using ethyl acetate and the organic layer was washed with saturated sodium metabisulfite, saturated sodium 35 bicarbonate and brine. The resulting clear solution was dried over sodium sulfate and concentrated in vacuo to give a white solid which was purified by

crystallization from 50% dichloromethane/isooctane gave 26 mg (62%) of pure product, whose structure was assigned as 2-phenyl-4-(cyclohexyl)-5-[4-(methylsulfonyl)phenyl]oxazole on the basis of its spectral characteristics: mp 231°C. $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 1.34-1.43 (m, 3H), 1.72-1.95 (m, 7H), 2.84 (m, 1H), 3.10 (s, 3H), 7.47 (m, 3H), 7.82 (d, $J=8\text{Hz}$, 2H), 8.03 (d, $J=8\text{Hz}$, 2H), 8.10 (m, 2H). . LRMS m/z 382 (M $^+$). HRMS Calc'd. for $\text{C}_{22}\text{H}_{23}\text{NO}_3\text{S}$: 382.1477.

Observed: 382.1436. Analysis Calc'd. for $\text{C}_{22}\text{H}_{23}\text{NO}_3\text{S}$: C, 69.27; H, 6.08; N, 3.67. Observed: C, 68.99; H, 6.07; N, 3.63.

EXAMPLE 26

15



4-(4-Fluorophenyl)-2-(3-hydroxymethyl)-5-[4-(methylsulfonyl)phenyl]oxazole

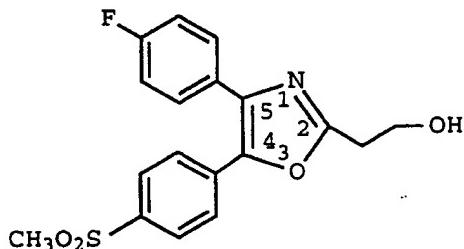
20

To a solution containing 5.0 g (11.4 mmol) of 2-benzyloxymethyl-4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazole (prepared in Example 24) in 20 mL of 50 % THF-methanol, was added 100 mg of 10% Pd on charcoal in a Fisher-Porter bottle. The reaction vessel was evacuated and then charged with hydrogen at 50 psi for 24 hours. The Pd on carbon was removed by filtration through diatomaceous earth and the filtrate concentrated in vacuo to give 3.8 g.

(97 %) of a white crystalline solid (mp 156-157°C) (recrystallized from 50% ethyl acetate/isooctane) whose structure was assigned as 4-(4-fluorophenyl)-2-hydroxymethyl-5-[4-(methylsulfonyl)phenyl]oxazole on the basis of its spectral characteristics: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 3.07 (s, 3H), 3.21 (bs, 1H), 4.81 (s, 2H), 7.10 (t, 2H, $J=8.5$ Hz), 7.56 (m, 2H), 7.72 (d, 2H, $J=8.8$ Hz) and 7.90 (d, 2H, $J=8.8$ Hz). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -111.5. LRMS m/z 348 ($M + H$)⁺. HRMS Calc'd. for $C_{17}\text{H}_{14}\text{NO}_4\text{FS}$: 348.0706. Observed: 348.0681. Analysis Calc'd. for $C_{17}\text{H}_{14}\text{NO}_4\text{FS}$: C, 58.78; H, 4.06; N, 4.03. Observed: C, 58.67; H, 4.02; N, 4.01.

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EXAMPLE 27



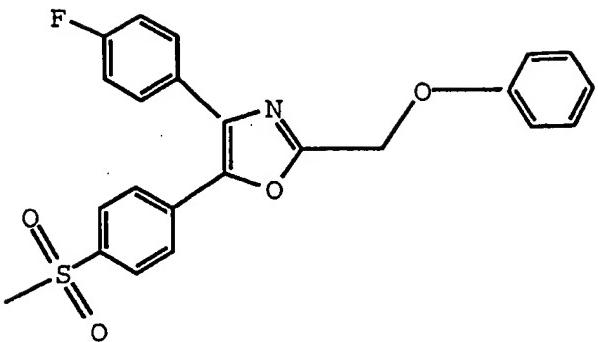
20

4-(4-Fluorophenyl)-2-(2-hydroxyethyl)-5-[4-(methylsulfonyl)phenyl]oxazole

25

4-(4-Fluorophenyl)-2-(2-hydroxyethyl)-5-[4-(methylsulfonyl)phenyl]oxazole was prepared in a manner consistent with that described in Example 20. The m/z 362 ($M+H$)⁺ was consistent with the assigned structure.

EXAMPLE 28



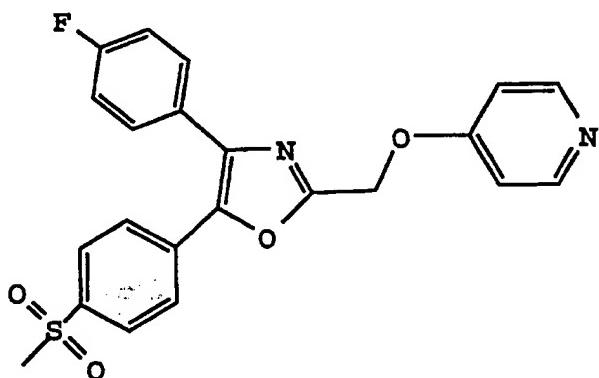
5 4-(4-Fluorophenyl)-5-[4-
 (methylsulfonyl)phenyl]-
 2-phenoxymethyloxazole

A solution containing 1.69 g (4.87 mmol) of
 10 4-(4-fluorophenyl)-2-hydroxymethyl-5-[4-
 (methylsulfonyl)phenyl]oxazole (Example 26) in 100 mL
 of methylene chloride was stirred at 25°C as 1.36 mL
 (9.74 mmol) of triethylamine was added dropwise,
 followed by the addition of 560 uL (7.30 mmol) of
 15 methanesulfonyl chloride. The reaction was stirred
 for 20 minutes, after which the organic solution was
 washed with 1N HCl, dried over sodium sulfate and
 concentrated in vacuo to give methyl [4-(4-
 fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-
 20 yl]methanesulfonate as a yellow oil which was
 characterized as the expected mesylate by its NMR
 spectrum: $^1\text{H-NMR}$ (CDCl_3 , 400 MHz) δ 3.08 (s, 3H), 3.17
 (s, 3H), 5.37 (s, 2H), 7.12 (t, 2H, $J=8.8$ Hz), 7.58
 (m, 2H), 7.78 (d, 2H, $J=8.8$ Hz) and 7.94 (d, 2H, $J=8.8$
 25 Hz). This material was used without further
 purification. A solution containing 544 mg (1.28
 mmol) of methyl [4-(4-fluorophenyl)-5-[4-
 (methylsulfonyl)phenyl]oxazol-2-yl]methanesulfonate in
 20 mL of DMF was stirred at 25°C as 353 mg (2.56 mmol)
 30 of potassium carbonate and 240 mg (2.56 mmol) of

phenol were added. The reaction was stirred for 2 days at 25°C and poured into 100 mL of water. To this mixture was added 100 mL of ethyl acetate and the layers separated. The organic layer was washed with 5 water, dried over sodium sulfate and concentrated in vacuo to give a crude beige solid which was purified by flash chromatography on a silica gel column using 25% ethyl acetate/hexane as the eluent to give 475 mg (88%) of a white solid which was recrystallized from 10 50% ethyl acetate/isooctane to give a white crystalline solid (mp 168-169°C) whose structure was assigned as 4-(4-fluorophenyl)-5-[4-(methylsulfonyl)-phenyl]-2-phenoxymethyloxazole on the basis of its spectral characteristics: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 15 3.07 (s, 3H), 5.23 (s, 2H), 6.98 (m, 5H), 7.33 (t, 2H, $J=8.2$ Hz), 7.60 (m, 2H), 7.77 (d, 2H, $J=8.5$ Hz) and 7.92 (d, 2H, $J=8.5$ Hz). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -111.9. Analysis calc. for $\text{C}_{23}\text{H}_{18}\text{NO}_4\text{FS}$ - C: 65.24, H: 4.28, 3.31. Observed- C: 65.10, H: 4.29, N: 3.28.

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EXAMPLE 29



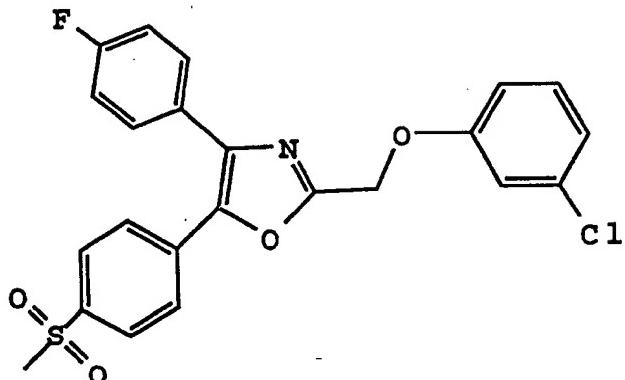
25 4-(4-Fluorophenyl)-2-(pyridyloxymethyl)-5-[4-(methylsulfonyl)phenyl]oxazole

4-(4-Fluorophenyl)-2-(pyridyloxymethyl)-5-[4-(methylsulfonyl)phenyl]oxazole was prepared in a

manner consistent with Example 28. Melting point:
276-278°C.

EXAMPLE 30

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4-(4-Fluorophenyl)-2-(3-chlorophenoxyethyl)-5-[4-(methylsulfonyl)phenyl]oxazole

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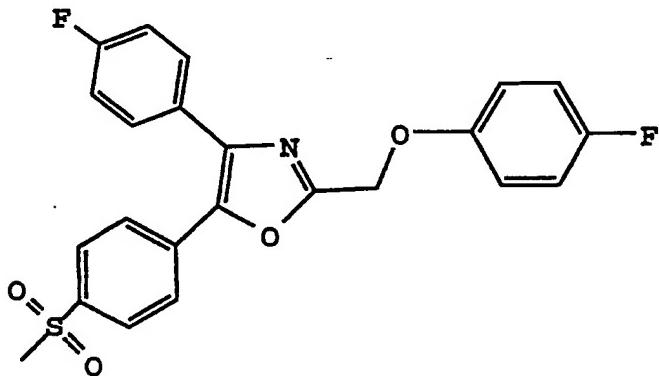
A solution containing 612 mg (1.44 mmol) of methyl [4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]methanesulfonate (as prepared in Example 28) in 20 mL of DMF was stirred at 25°C as 397 mg (2.88 mmol) of potassium carbonate and 0.3 mL (2.88 mmol) of 3-chlorophenol were added. The reaction was stirred for 2 days at 25°C and poured into 100 mL of water. To this mixture was added 100 mL of ethyl acetate and the layers separated. The organic layer was washed with water, dried over sodium sulfate and concentrated in vacuo to give the crude solid which was purified by flash chromatography on a silica gel column using 50% ethyl acetate/hexane as the eluent to give 528 mg (80%) of a white solid which was recrystallized from 50% dichloromethane/isooctane to give a white crystalline solid (mp 112-114°C) whose structure was assigned as 4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]-2-(3-

90

chlorophenoxy)methyloxazole on the basis of its spectral characteristics: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 3.08 (s, 3H), 5.22 (s, 2H), 7.08 (m, 2H), 7.13 (m, 3H), 7.26 (m, 1H), 7.59 (dd, 2H, $J=8.8, 5.4$ Hz), 7.62 (dd, 2H, $J=8.8, 5.4$ Hz), 7.78 (d, 2H, $J=8.8$ Hz), 7.93 (d, 2H, $J=8.8$ Hz). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -111.8. Analysis Calc'd. for $\text{C}_{23}\text{H}_{17}\text{NO}_4\text{FSO}_3$: C, 60.33; H, 3.74; N, 3.06. Observed: C, 60.19; H, 3.80; N, 3.03.

10

EXAMPLE 31



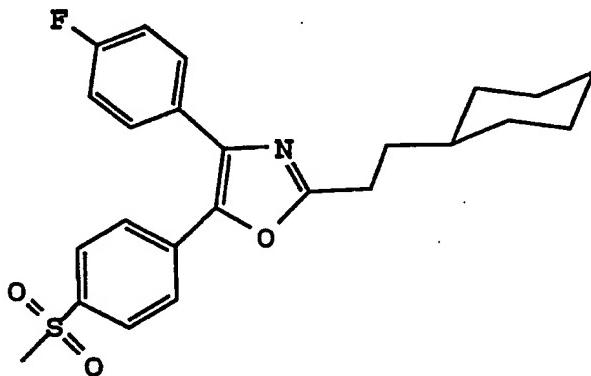
15 4-(4-Fluorophenyl)-2-(4-fluorophenoxy)methyl-5-[4-(methylsulfonyl)phenyl]oxazole

A solution containing 585 mg (1.37 mmol) of methyl [4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]methanesulfonate (as prepared in Example 28) in 15 mL of DMF was stirred at 25°C as 380 mg (2.74 mmol) of potassium carbonate and 308 mg (2.74 mmol) of 4-fluorophenol are added. The reaction was stirred for 2 days at 25°C and poured into 100 mL of water. To this mixture was added 100 mL of ethyl acetate and the layers separated. The organic layer was washed with water, dried over sodium sulfate and concentrated in vacuo to give the crude solid which was purified by flash

chromatography on a silica gel column using 50% ethyl acetate/hexane as the eluent to give 528 mg (80%) of a white solid which was recrystallized from 50% dichloromethane/isooctane to give a white crystalline 5 solid (mp 133-134°C) whose structure was assigned as 4-(4-fluorophenyl)-5-[4-(methylsulfonyl)-phenyl]-2-[(4-fluorophenoxy)methyl]oxazole on the basis of its spectral characteristics: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 3.08 (s, 3H), 5.19 (s, 2H), 7.00 (m, 4H), 7.13 (m, 10 2H), 7.58 (dd, 2H, $J=8.8, 5.2$ Hz), 7.61 (dd, 2H, $J=8.8, 5.2$ Hz), 7.77 (d, 2H, $J=8.7$ Hz), 7.93 (d, 2H, $J=8.7$ Hz). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -111.8, -122.5. Analysis Calc'd. for $\text{C}_{23}\text{H}_{17}\text{NO}_4\text{F}_2\text{S}$: C, 62.58; H, 3.88; N, 3.17. Observed: C, 62.44; H, 4.04; N, 3.11.

15

EXAMPLE 32



20 4-(4-Fluorophenyl)-2-(cyclohexylethyl)-5-[4-(methylsulfonyl)phenyl]oxazole

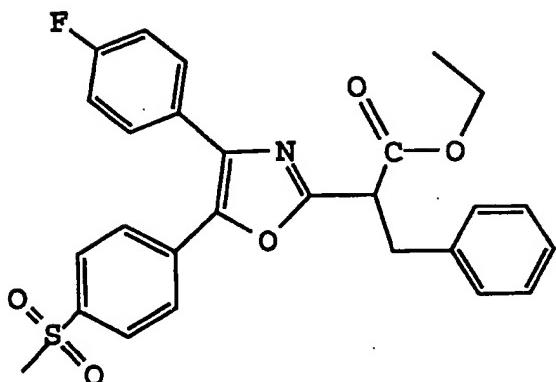
A solution containing 2.02 g (7.24 mmol) of 1-(4-fluorophenyl)-2-hydroxy-2-[4-(methylthiophenyl)ethanone in 100 mL of methylene 25 chloride was stirred at 25°C as 1.76 mL (21.72 mmol) of pyridine was added, followed by the addition of 1.52 g (8.69 mmol) of 2-cyclohexylpropionyl chloride. The reaction was stirred at 25°C for 48 hours, after

which the resulting yellow solution was washed with 1N HCl, dried over sodium sulfate and concentrated in vacuo. The crude solid was purified via flash chromatography on a silica gel column using 10 % ethyl acetate/hexane as the eluent. This provided 2.87 g (96 %) of a white foam, which was characterized as the benzoin ester on the basis of its NMR spectra: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 0.80-0.96 (m, 2H), 1.10-1.25 (m, 4H), 1.45-1.78 (m, 7H), 2.40 (m, 2H), 2.43 (s, 3H), 6.75 (s, 1H), 7.05 (m, 2H), 7.23 (d, 2H, $J=8$ Hz), 7.35 (d, 2H, $J=8$ Hz) and 7.95 (m, 2H). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -104.4.

A solution containing 2.87 g (6.92 mmol) of the benzoin ester and 5.3 g (69 mmol) of ammonium acetate in 100 mL of acetic acid was heated to 80°C for 2 hours. The reaction was cooled to 25°C and poured into water. The product was extracted into ethyl acetate and the combined organic extracts washed with an aqueous solution of sodium bicarbonate. The solution was dried over sodium sulfate and concentrated in vacuo to give the crude oxazole. This crude material was purified by flash chromatography on a silica gel column using 25% ethyl acetate/hexane as the eluent to give 1.87 g (68%) of a clear oil, which was characterized as 2-(2-cyclohexylethyl)-4-(4-fluorophenyl)-5-[4-(methythio)phenyl]oxazole on the basis of its spectral properties: $^1\text{H-NMR}$ (CDCl_3 , 400 MHz) δ 0.90-1.02 (m, 2H), 1.10-1.40 (m, 4H), 1.62-1.82 (m, 7H), 2.49 (s, 3H), 2.84 (t, $J=8.0$ Hz, 2H), 7.03 (d, $J=8.7$ Hz, 1H), 7.06 (d, $J=8.7$ Hz, 1H), 7.22 (d, $J=8.6$ Hz, 2H), 7.45 (d, $J=8.6$ Hz, 2H), 7.58 (d, $J=5.4$ Hz, 1H), 7.61 (d, $J=5.4$ Hz, 1H). The material from this experiment was used directly in the next step without further purification.

A solution of 1.87g (4.73 mmol) of 2-(2-cyclohexylethyl)-4-(4-fluorophenyl)-5-[4-(methythio)phenyl]oxazole in 100 mL of methylene chloride was stirred at -78°C as 3.26 g (9.46 mmol based on 50% purity) of m-chloroperoxybenzoic acid was added all at once. The reaction was stirred at -78°C for 1 hour and TLC (silica, 50% hexane/ethyl acetate) indicated that the reaction mixture consisted of mostly sulfone. The reaction was poured into a solution of aqueous sodium metabisulfite. The aqueous solution was extracted using ethyl acetate and the organic layer was washed with saturated sodium metabisulfite, saturated sodium bicarbonate and brine. The resulting clear solution was dried over sodium sulfate and concentrated in vacuo to give a white solid which was purified by flash chromatography on a silica gel column using 50% ethyl acetate/hexane as the eluent. Recrystallization from 50% ethyl acetate/isooctane gave 1.76 g (87%) of a low melting semi-solid whose structure was assigned as 2-(2-cyclohexylethyl)-4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazole on the basis of its spectral characteristics: $^1\text{H-NMR}$ (CDCl_3 , 300 MHz) δ 0.90-1.06 (m, 2H), 1.11-1.40 (m, 7H), 2.87 (apparent t, $J=8.1\text{Hz}$, 2H), 3.07 (s, 3H), 7.10 (t, $J=8.7\text{Hz}$, 2H), 7.59 (m, 2H), 7.74 (d, $J=8.7\text{Hz}$, 2H), 7.90 (d, $J=8.7\text{Hz}$, 2H). $^{19}\text{F-NMR}$ (CDCl_3 , 280 MHz) δ -112.49. LRMS m/z 427 (M)+. HRMS Calc'd. for $\text{C}_{24}\text{H}_{26}\text{NO}_3\text{FS}$: 421.1617. Observed: 421.1611. Analysis Calc'd. for $\text{C}_{24}\text{H}_{26}\text{NO}_3\text{FS}$: C, 67.43; H, 6.13; N, 3.28. Observed: C, 67.27; H, 6.15; N, 3.24.

EXAMPLE 33



5 Ethyl 2-[4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]oxazol-2-yl]-2-benzyl-acetate

10 Step 1: Preparation of 2-(4-fluorophenyl)-3-(4-methylthiophenyl)propenoic acid

Acetic anhydride (500 mL), 4-(methylthio)benzaldehyde (100.2 g, 0.66 mol), 4-fluorophenylacetic acid (101.6 g, 0.66 mol), and triethylamine (68.1 g, 0.67 mol) were placed in a 3 L round bottom flask and heated to reflux for 1.75 hours. The reaction was cooled to 110°C, and water (500 mL) was added cautiously through an addition funnel. This caused the solution to reflux vigorously and the temperature to rise to 135°C. A yellow precipitate formed, and after cooling to room temperature, was collected by filtration, washed with water, and recrystallized from ethyl acetate/isooctane to provide the diarylacrylic acid as yellow needles (135.2 g, 71%): mp 172-176°C. ^1H NMR (acetone d_6) 300 MHz 7.84 (s, 1H), 7.03-7.28 (m, 10H), 2.46 (s, 3H). ^{19}F NMR (acetone d_6) -116.11 (m). Mass spectrum M+ 288.

Step 2: Preparation of 1-(4-fluorophenyl)-2-(4-methylthiophenyl)ethanone

5 The diaryl acrylic acid (226.5 g, 0.78 mol) was placed in a 2 L round bottom flask with anhydrous toluene (800 mL) and triethylamine (81.2 g, 0.80 mol). After cooling to 0°C, diphenylphosphoryl azide (217.4 g, 0.79 mol) was added, the solution was stirred at 0°C
10 for 20 minutes and at room temperature for 2.50 hours. The reaction was poured into water, extracted with ether, dried over magnesium sulfate, and concentrated in vacuo to remove the ether. The remaining toluene solution was heated to reflux and a vigorous evolution
15 of gas occurred. After 1.25 hours, *tert*-butyl alcohol (80 mL, 0.84 mol) was added to the reaction. After an additional 20 minutes, concentrated hydrochloric acid (41 mL) was added slowly causing the reaction to foam. The reaction was heated at 90°C overnight (14 hours)
20 and a white precipitate formed after cooling. The precipitate was isolated by filtration, washed with cold ether, and air dried to yield the desired intermediate (182.7 g, 89%): mp 134.5-138°C. ¹H NMR (acetone d⁶) 300 MHz 8.16 (m, 2H), 7.24 (m, 6H), 4.34
25 (s, 2H), 2.46 (s, 3H). ¹⁹F NMR (acetone d⁶) -107.88 (m).

Step 3: Preparation of 1-(4-fluorophenyl)-2-(4-methylthiophenyl)-2-hydroxy-ethanone

30 A 1 L three necked round bottomed flask equipped with reflux condenser, magnetic stir bar, thermometer adapter, and constant pressure addition funnel was charged with the intermediate from Step 2,
35 (55.5 g, 0.21 mol), acetic acid (250 mL) and 33% HBr in acetic acid (120 mL). The solution was stirred and treated with bromine (11.1 mL, 0.21 mol) from the

addition funnel at such a rate that the bromine color was discharged rapidly, ca. 15 minutes. After an additional 10 minutes at room temperature, the solution was filtered through a Buchner funnel and the filtrate 5 concentrated in vacuo to give an orange solid. The crude bromoketone was dissolved in dichloromethane and washed with 1N NaHSO₃, dried over anhydrous MgSO₄, filtered and concentrated in vacuo to give 68.8 g of 1-(4-fluorophenyl)-2-(4-methylthiophenyl)-2-bromoethanone 10 as a yellow solid which was used directly without further purification. The crude bromoketone was dissolved in 300 mL acetone and 150 mL of water and heated to reflux for 2.5 hours. The solution was concentrated in vacuo and the residue taken up in 15 dichloromethane, washed with saturated aqueous sodium bicarbonate, brine, dried over anhydrous magnesium sulfate, filtered and reconcentrated in vacuo to give a light yellow solid that was crystallized from a mixture of dichloromethane and isooctane to provide 37.8 g 20 (65%) of pure 1-(4-fluorophenyl)-2-(4-methylthiophenyl)-2-hydroxy-ethanone: mp 90-92 °C.

Step 4: Preparation of ethyl 2-[4-(4-fluorophenyl)-5-[4-methylthio)phenyl]oxazol-2-yl]acetate

25 A solution containing 8.00 g (29 mmol) of 1-(4-fluorophenyl)-2-hydroxy-2-[4-(methylthiophenyl)ethanone in 100 mL of methylene chloride was stirred at 25°C as 7.0 mL (31 mmol) of 30 pyridine was added, followed by the addition of 4.5 mL (35 mmol) of ethyl malonyl chloride. The reaction was stirred at 25°C for 48 hours, after which the resulting yellow solution was washed with 1N HCl, dried over sodium sulfate and concentrated in vacuo. The crude 35 solid was purified via flash chromatography on a silica gel column using 10% ethyl acetate/hexane as the eluent. This provided 7.31 g (64%) of a white foam,

which was used directly without further purification. The product from above (7.31 g, 18.7 mmol) and 7.2 g of ammonium acetate (93.5 mmol, 5 equivalents) in 50 mL of glacial acetic were heated to reflux for 2 hours. The 5 reaction mixture was cooled to 25°C and poured into 100 mL of water. The aqueous solution was extracted with ethyl acetate and the combined organic extracts were washed with water and sodium bicarbonate solution, dried over sodium sulfate and concentrated in vacuo.
10 The crude solid was purified by flash chromatography using a silica gel column and 20% ethyl acetate/hexane as the eluent to give a white solid which was recrystallized from 50% ethyl acetate/isooctane to give 5.55 g (80%) of a white solid whose structure was
15 assigned as ethyl 2-[4-(4-fluorophenyl)-5-[4-methylthio)phenyl]oxazol-2-yl]acetate and was judged suitable for taking onto the next step.

Step 5: Preparation of ethyl 2-[4-(4-fluorophenyl)-5-[4-methylsulfonyl)phenyl]oxazol-2-yl]-1-benzyl-acetate

A solution of 755 mg (2.03 mmol) of ethyl 2-[4-(4-fluorophenyl)-5-[4-methylthio)phenyl]oxazol-2-yl]acetate (from Step 4) was dissolved in 20 mL of anhydrous tetrahydrofuran (THF) and cooled to -78°C and treated with a solution of potassium bis(trimethylsilyl)amide (2.44 mL, 1.2 equivalents, 1M in THF via syringe. The solution was maintained at 25 -78°C for 15 minutes and treated with a solution of 290 uL (2.44 mmol) of benzyl bromide. The solution was warmed to room temperature and poured into a saturated aqueous solution of ammonium chloride. The aqueous solution was extracted with ethyl acetate, washed with 30 brine, dried over anhydrous sodium sulfate, filtered and concentrated in vacuo to give an oil that was purified by flash chromatography on silica gel eluting

with 10% ethyl acetate/hexane to provide 396 mg of the dialkylated product and 182 mg (19%) of ethyl 2-[4-(4-fluorophenyl)-5-[4-methylthio)phenyl]oxazol-2-yl]-1-benzyl-acetate that was used directly in the next step.

5 A solution of 182 mg (0.344 mmol) of ethyl 2-[4-(4-fluorophenyl)-5-[4-methylthio)phenyl]oxazol-2-yl]-1-benzyl-acetate in 5 mL of dichloromethane was cooled to -78°C and treated with 272 mg (2 equivalents) of *m*-chloroperoxybenzoic acid for 2 hours. The reaction was

10 poured into a solution of aqueous sodium metabisulfite. The aqueous solution was extracted using ethyl acetate and the organic layer was washed with saturated sodium metabisulfite, saturated sodium bicarbonate and brine. The resulting clear solution was dried over sodium

15 sulfate and concentrated in vacuo to give a transparent oil which was purified by flash chromatography on a silica gel column using 30% ethyl acetate/hexane as the eluent. The purified material was an oil whose structure was assigned as ethyl 2-[4-(4-fluorophenyl)-

20 5-[4-methylsulfonyl)phenyl]oxazol-2-yl]-1-benzyl-acetate on the basis of its spectral characteristics:

¹H-NMR (CDCl₃, 300 MHz) δ 1.20 (t, J= 7.0Hz, 3H), 3.07 (s, 3H), 3.53 (m, 2H), 4.19 (q, J= 7.0Hz, 2H), 4.23 (m, 1H), 7.10 (d, J= 8.7Hz, 2H), 7.25 (m, 5H), 7.57 (m, 2H), 7.70 (d, J= 8.7Hz, 2H), 7.90 (d, J= 8.7Hz, 2H).

25 ¹⁹F-NMR (CDCl₃, 280 MHz) δ -112.15. LRMS m/z 493 (M)+.

HRMS Calc'd. for C₂₇H₂₄NO₅FS: 493.1359. Observed: 493.1371.

Rat Carrageenan Foot Pad Edema Test

The carrageenan foot edema test was

35 performed with materials, reagents and procedures essentially as described by Winter, et al., (Proc. Soc. Exp. Biol. Med., 111, 544 (1962)). Male

Sprague-Dawley rats were selected in each group so that the average body weight was as close as possible. Rats were fasted with free access to water for over sixteen hours prior to the test. The rats 5 were dosed orally (1 mL) with compounds suspended in vehicle containing 0.5% methylcellulose and 0.025% surfactant, or with vehicle alone. One hour later a subplantar injection of 0.1 mL of 1% solution of carrageenan/sterile 0.9% saline was administered and 10 the volume of the injected foot was measured with a displacement plethysmometer connected to a pressure transducer with a digital indicator. Three hours after the injection of the carrageenan, the volume of the foot was again measured. The average foot 15 swelling in a group of drug-treated animals was compared with that of a group of placebo-treated animals and the percentage inhibition of edema was determined (Otterness and Bliven, Laboratory Models for Testing NSAIDs, in Non-steroidal Anti- 20 Inflammatory Drugs, (J. Lombardino, ed. 1985)). The % inhibition shows the % decrease from control paw volume determined in this procedure and the data for selected compounds in this invention are summarized in Table 1.

25

Rat Carrageenan-induced Analgesia Test

The analgesia test using rat carrageenan was performed with materials, reagents and procedures 30 essentially as described by Hargreaves, et al., (Pain, 32, 77 (1988)). Male Sprague-Dawley rats were treated as previously described for the Carrageenan Foot Pad Edema test. Three hours after the injection of the carrageenan, the rats were placed in a special plexiglass container with 35 a transparent floor having a high intensity lamp as a radiant heat source, positionable under the floor. After an initial twenty minute period, thermal stimulation was begun

100

on either the injected foot or on the contralateral uninjected foot. A photoelectric cell turned off the lamp and timer when light was interrupted by paw withdrawal. The time until the rat withdraws its foot was then measured. The withdrawal latency in seconds was determined for the control and drug-treated groups, and percent inhibition of the hyperalgesic foot withdrawal determined. Results are shown in Table I.

10

TABLE I.

		RAT PAW EDEMA	ANALGESIA
		% Inhibition @ 10mg/kg body weight	% Inhibition @ 20mg/kg body weight
		<hr/>	
15	Example		
	1	41*	44
	3	30	-
	7	24	-
	8	12	-
20	10	18	-
	11	42	-
	16	26	-
	28	2	-
	30	4	-
25	31	5	-

* @ 20mg/kg body weight

30 Evaluation of COX I and COX II activity in vitro

The compounds of this invention exhibited inhibition in vitro of COX II. The COX II inhibition activity of the compounds of this invention illustrated in the Examples was determined by the following methods.

a. Preparation of recombinant COX baculoviruses

A 2.0 kb fragment containing the coding region of either human or murine COX-I or human or murine COX-II was cloned into a BamH1 site of the baculovirus transfer vector pVL1393 (Invitrogen) to generate the baculovirus transfer vectors for COX-I and COX-II in a manner similar to the method of D.R. O'Reilly et al (*Baculovirus Expression Vectors: A Laboratory Manual* (1992)). Recombinant baculoviruses were isolated by transfecting 4 µg of baculovirus transfer vector DNA into SF9 insect cells (2×10^8) along with 200 ng of linearized baculovirus plasmid DNA by the calcium phosphate method. See M.D. Summers and G.E. Smith, *A Manual of Methods for Baculovirus Vectors and Insect Cell Culture Procedures*, Texas Agric. Exp. Station Bull. 1555 (1987). Recombinant viruses were purified by three rounds of plaque purification and high titer (10^7 - 10^8 pfu/ml) stocks of virus were prepared. For large scale production, SF9 insect cells were infected in 10 liter fermentors (0.5×10^6 /ml) with the recombinant baculovirus stock such that the multiplicity of infection was 0.1. After 72 hours the cells were centrifuged and the cell pellet homogenized in Tris/Sucrose (50 mM: 25%, pH 8.0) containing 1% 3-[*(3-cholamidopropyl)dimethylammonio*] -1-propanesulfonate (CHAPS). The homogenate was centrifuged at 10,000xG for 30 minutes, and the resultant supernatant was stored at -80°C before being assayed for COX activity.

b. Assay for COX I and COX II activity:

COX activity was assayed as PGE₂ formed/µg protein/time using an ELISA to detect the prostaglandin released. CHAPS-solubilized insect cell membranes containing the appropriate COX enzyme were incubated in a potassium phosphate buffer (50 mM, pH 8.0) containing epinephrine, phenol, and heme with the addition of arachidonic acid (10 µM). Compounds were pre-incubated with the enzyme for 10-20 minutes prior to the addition of

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arachidonic acid. Any reaction between the arachidonic acid and the enzyme was stopped after ten minutes at 37°C/room temperature by transferring 40 µl of reaction mix into 160 µl ELISA buffer and 25 µM indomethacin. The PGE₂ formed was 5 measured by standard ELISA technology (Cayman Chemical). Results are shown in Table II.

TABLE II.

	COX I		COX II	
	ID ₅₀	µM	ID ₅₀	µM
Example				
1	6.9		.02	
3	>10		.04	
15	14	>30	>10	
	15	>30	.2	
	25	>10	.5	
	28	>100	.02	
	29	>100	100	
20	30	>100	.02	
	31	>100	.025	
	32	15.9	.01	
	33	3.1	.05	
25				

Also embraced within this invention is a class of pharmaceutical compositions comprising one or more compounds of Formula I in association with one or 30 more non-toxic, pharmaceutically acceptable carriers and/or diluents and/or adjuvants (collectively referred to herein as "carrier" materials) and, if desired, other active ingredients. The compounds of the present invention may be administered by any suitable route, 35 preferably in the form of a pharmaceutical composition adapted to such a route, and in a dose effective for the treatment intended. The compounds and composition may,

for example, be administered intravascularly, intraperitoneally, subcutaneously, intramuscularly or topically.

5 For oral administration, the pharmaceutical composition may be in the form of, for example, a tablet, capsule, suspension or liquid. The pharmaceutical composition is preferably made in the form of a dosage unit containing a particular amount of
10 the active ingredient. Examples of such dosage units are tablets or capsules. The active ingredient may also be administered by injection as a composition wherein, for example, saline, dextrose or water may be used as a suitable carrier.

15 The amount of therapeutically active compound that is administered and the dosage regimen for treating a disease condition with the compounds and/or compositions of this invention depends on a variety of factors, including the age, weight, sex and medical condition of the subject, the severity of the disease, the route and frequency of administration, and the particular compound employed, and thus may vary widely. The pharmaceutical compositions may contain active
25 ingredient in the range of about 0.1 to 1000 mg, preferably in the range of about 0.5 to 500 mg and most preferably between about 1 and 100 mg. A daily dose of about 0.01 to 100 mg/kg body weight, preferably between about 0.1 and about 50 mg/kg body weight and most
30 preferably from about 1 to 20 mg/kg body weight, may be appropriate. The daily dose can be administered in one to four doses per day.

For therapeutic purposes, the compounds of
35 this invention are ordinarily combined with one or more adjuvants appropriate to the indicated route of administration. If administered per os, the compounds

may be admixed with lactose, sucrose, starch powder, cellulose esters of alkanoic acids, cellulose alkyl esters, talc, stearic acid, magnesium stearate, magnesium oxide, sodium and calcium salts of phosphoric and sulfuric acids, gelatin, acacia gum, sodium alginate, polyvinylpyrrolidone, and/or polyvinyl alcohol, and then tableted or encapsulated for convenient administration. Such capsules or tablets may contain a controlled-release formulation as may be provided in a dispersion of active compound in hydroxypropylmethyl cellulose. Formulations for parenteral administration may be in the form of aqueous or non-aqueous isotonic sterile injection solutions or suspensions. These solutions and suspensions may be prepared from sterile powders or granules having one or more of the carriers or diluents mentioned for use in the formulations for oral administration. The compounds may be dissolved in water, polyethylene glycol, propylene glycol, ethanol, corn oil, cottonseed oil, peanut oil, sesame oil, benzyl alcohol, sodium chloride, and/or various buffers. Other adjuvants and modes of administration are well and widely known in the pharmaceutical art.

While the compounds of the invention can be administered as the sole active pharmaceutical agent, they can also be used in combination with one or more immunomodulators, antiviral agents or other antiinfective agents. For example, the compounds of the invention can be administered in combination with antihistamines or with other such agents known heretofore to be effective in combination with antiinflammatory agents. When administered as a combination, the therapeutic agents can be formulated as separate compositions which are given at the same time or different times, or the therapeutic agents can be given as a single composition.

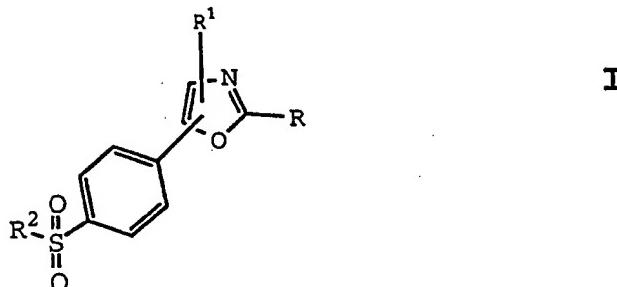
5 The examples herein can be repeated with similar success by substituting the generically or specifically described reactants and/or operating conditions of this invention for those used in the preceding examples.

10 The foregoing is merely illustrative of the invention and is not intended to limit the invention to the disclosed compounds. Variations and changes which are obvious to one skilled in the art are intended to be within the scope and nature of the invention which are defined in the appended claims. Although this invention has been described with respect to specific 15 embodiments, the details of these embodiments are not to be construed as limitations.

What is claimed is:

1. A compound of Formula I

5



wherein R is selected from hydrido, alkyl, hydroxyalkyl, haloalkyl, alkenyl, hydroxyalkenyl, alkynyl, hydroxyalkynyl, cycloalkyl, cycloalkylalkyl, 10 aryl optionally substituted at a substitutable position by carboxy, alkyl, alkoxy and halo, heteroaryl optionally substituted at a substitutable position by carboxy, alkyl, alkoxy and halo, aralkyl optionally substituted at a substitutable position on 15 the aryl radical by carboxy, alkyl, alkoxy and halo, aryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, alkyl and alkoxy, aralkoxyalkyl optionally substituted at a substitutable position with halo, carboxy, alkyl and 20 alkoxy, heteroaryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, alkyl and alkoxy, alkoxy carbonyl, alkoxy carbonylalkyl, carboxy, carboxyalkyl, arylthioalkyl, aminocarbonylalkyl, N-alkylaminocarbonylalkyl and 25 N,N-dialkylaminocarbonylalkyl;

wherein R¹ is selected from cycloalkyl, cycloalkenyl, aryl and heteroaryl, wherein R¹ is 30 optionally substituted at a substitutable position by alkyl, alkoxy and halo; and wherein R² is selected from alkyl, haloalkyl and amino;

or a pharmaceutically-acceptable salt thereof; provided R is not methyl when R² is amino; and further provided that R¹ is not phenyl when R² is methyl and R is isopropyl or tert-butyl.

5

2. Compound of Claim 1 wherein R is selected from hydrido, lower alkyl, lower hydroxyalkyl, lower haloalkyl, lower alkenyl, lower hydroxyalkenyl, lower alkynyl, lower hydroxyalkynyl, lower cycloalkyl, lower cycloalkylalkyl, aryl selected from phenyl and naphthyl, optionally substituted at a substitutable position by halo, carboxy, lower alkyl and lower alkoxy, heteroaryl selected from pyridyl, thienyl, thiazolyl, oxazolyl, imidazolyl, furyl and quinolyl, optionally substituted at a substitutable position by halo, carboxy, lower alkyl and lower alkoxy, lower aralkyl optionally substituted at a substitutable position on the aryl radical by halo, carboxy, lower alkyl and lower alkoxy, lower aryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, lower alkyl and lower alkoxy, lower heteroaryloxyalkyl optionally substituted at a substitutable position with halo, carboxy, lower alkyl and lower alkoxy, lower aralkoxyalkyl optionally substituted at a substitutable position with halo, carboxy, lower alkyl and lower alkoxy, lower alkoxycarbonyl, lower alkoxycarbonylalkyl, carboxy, lower carboxyalkyl, lower arylthioalkyl, lower aminocarbonylalkyl, lower N-alkylaminocarbonylalkyl and lower N,N-dialkylaminocarbonylalkyl; wherein R¹ is selected from lower cycloalkyl, lower cycloalkenyl, phenyl, naphthyl and heteroaryl selected from pyridyl, thienyl, thiazolyl, oxazolyl, imidazolyl, furyl, quinolyl, benzothiazolyl, 2,3-thianaphthalenyl, 2,3-

dihydrothianaphthalenyl, 2,3-benzofuryl, and 2,3-dihydrobenzofuryl, wherein R¹ is optionally substituted at a substitutable position by lower alkyl, lower alkoxy and halo; and

5 wherein R² is selected from lower alkyl, lower haloalkyl and amino;

 or a pharmaceutically-acceptable salt or prodrug thereof.

- 10 3. Compound of Claim 2 wherein R is selected from hydrido, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, hydroxymethyl, fluoromethyl, difluoromethyl, trifluoromethyl, chloromethyl, dichloromethyl, trichloromethyl, pentafluoroethyl, heptafluoropropyl, difluorochloromethyl, dichlorofluoromethyl, difluoroethyl, difluoropropyl, dichloroethyl, dichloropropyl, ethenyl, 1-propenyl, 2-propenyl, 1-butenyl, 2-butenyl, 3-butenyl, hydroxyethenyl, 20 ethynyl, 1-propynyl, 2-propynyl, 1-butynyl, 2-butynyl, 3-butynyl, hydroxyethynyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, cyclohexylethyl, cyclohexylpropyl, cycloheptylmethyl, phenyl and naphthyl, optionally substituted at a substitutable position by fluoro, chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, pyridyl, 30 thienyl, thiazolyl, oxazolyl, imidazolyl, furyl and quinolyl, optionally substituted at a substitutable position by fluoro, chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, 35 benzyl, phenethyl, diphenylmethyl and phenpropyl, optionally substituted at a substitutable position on the phenyl radical by fluoro, chloro, bromo, iodo,

carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, phenoxyethyl optionally substituted at a substitutable position on the phenyl radical with

5 fluoro, chloro, bromo, iodo, carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, benzyloxymethyl optionally substituted at a substitutable position on the phenyl radical with fluoro, chloro, bromo, iodo,

10 carboxy, methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, pyridyloxymethyl and quinolylloxymethyl optionally substituted at a substitutable position with fluoro, chloro, bromo, iodo, carboxy, methyl,

15 ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy and butoxy, methoxycarbonyl, ethoxycarbonyl, propoxycarbonyl, butoxycarbonyl, methoxycarbonylmethyl, ethoxycarbonylmethyl, methoxycarbonylethyl,

20 ethoxycarbonylethyl, carboxy, acetyl, propanoic, butanoic, pentanoic, hexanoic, phenylthiomethyl, aminocarbonylmethyl, N-methylaminocarbonylmethyl and N,N-dimethylaminocarbonylmethyl;

wherein R¹ is selected from cyclobutyl,

25 cyclopentyl, cyclohexyl, cycloheptyl, 1-cyclohexenyl, 2-cyclohexenyl, 3-cyclohexenyl, cyclopentenyl, cycloheptenyl, phenyl, naphthyl, pyridyl, thiényl, thiazolyl, oxazolyl, imidazolyl, furyl, quinolyl, benzothiazolyl, 2,3-thianaphthalenyl, 2,3-

30 dihydrothianaphthalenyl, 2,3-benzofuryl, and 2,3-dihydrobenzofuryl, wherein R¹ is optionally substituted at a substitutable position by methyl, ethyl, n-propyl, isopropyl, butyl, tert-butyl, isobutyl, methoxy, ethoxy, propoxy, butoxy, fluoro,

35 chloro, bromo and iodo; and

wherein R² is selected from methyl, ethyl, trifluoromethyl, difluoromethyl, fluoromethyl and amino;
or a pharmaceutically-acceptable salt or
5 prodrug thereof.

4. Compound of Claim 3 selected from compounds, their prodrugs and their pharmaceutically-acceptable salts, of the group consisting of

- 10 4-[2-benzyl-5-(phenyl)oxazol-4-yl]benzenesulfonamide;
4-[2-benzyl-5-(4-fluorophenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3,4-difluorophenyl)oxazol-4-
15 y1]benzenesulfonamide;
4-[2-benzyl-5-(4-chlorophenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3,4-dichlorophenyl)oxazol-4-
y1]benzenesulfonamide;
20 4-[2-benzyl-5-(4-methoxyphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3,4-dimethoxyphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(4-methylphenyl)oxazol-4-
25 y1]benzenesulfonamide;
4-[2-benzyl-5-(3,4-dimethylphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3-chloro-4-methylphenyl)oxazol-4-
y1]benzenesulfonamide;
30 4-[2-benzyl-5-(4-chloro-3-methylphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(3-chloro-4-methoxyphenyl)oxazol-4-
y1]benzenesulfonamide;
4-[2-benzyl-5-(4-chloro-3-methoxyphenyl)oxazol-4-
35 y1]benzenesulfonamide;
4-[2-benzyl-5-(3,5-dichloro-4-methoxyphenyl)oxazol-4-
y1]benzenesulfonamide;

- 4-[2-benzyl-5-(3-fluoro-4-methylphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(4-fluoro-3-methylphenyl)oxazol-4-
yl]benzenesulfonamide;
- 5 4-[2-benzyl-5-(3-fluoro-4-methoxyphenyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(2-thienyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(5-chloro-2-thienyl)oxazol-4-
10 10]benzenesulfonamide;
4-[2-benzyl-5-(cyclohexyl)oxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-5-(1-cyclohexenyl)oxazol-4-
yl]benzenesulfonamide;
- 15 15 2-benzyl-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,4-
difluorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-
chlorophenyl)oxazole;
- 20 20 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,4-
dichlorophenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-
methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,4-
25 25 dimethoxyphenyl)oxazole;
- 2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-
methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,4-
dimethylphenyl)oxazole;
- 30 30 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-chloro-4-
methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-chloro-3-
methylphenyl)oxazole;
- 35 35 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-chloro-4-
methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-chloro-3-
methoxyphenyl)oxazole;

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- 2-benzyl-4-(4-methylsulfonylphenyl)-5-(3,5-dichloro-4-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-fluoro-4-methylphenyl)oxazole;
5 2-benzyl-4-(4-methylsulfonylphenyl)-5-(4-fluoro-3-methylphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(3-fluoro-4-methoxyphenyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(2-thienyl)oxazole;
10 2-benzyl-4-(4-methylsulfonylphenyl)-5-(5-chloro-2-thienyl)oxazole;
2-benzyl-4-(4-methylsulfonylphenyl)-5-(cyclohexyl)oxazole-;
15 2-benzyl-4-(4-methylsulfonylphenyl)-5-(1-cyclohexenyl)oxazole;
2-(ethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(trifluoromethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
20 2-(difluoromethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(hydroxymethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(carboxy)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
25 2-(methoxycarbonyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(ethoxycarbonyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
30 2-(propyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(benzyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(phenoxy methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
35 2-((4-chlorophenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-((4-fluorophenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;

- 2-((4-carboxyphenoxy)methyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(2-phenethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
- 5 2-(3-phenpropyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(carboxymethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(ethoxycarbonylmethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
- 10 2-(methoxycarbonylmethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
2-(2-quinolyloxymethyl)-4-(4-methylsulfonylphenyl)-5-phenyloxazole;
- 15 4-[2-(ethyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(trifluoromethyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(difluoromethyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
- 20 4-[2-(hydroxymethyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(carboxy)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(methoxycarbonyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
- 25 4-[2-(ethoxycarbonyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(propyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(benzyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-(phenoxyethyl)-5-phenyloxazol-4-
- 30 yl]benzenesulfonamide;
4-[2-((4-chlorophenoxy)methyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
4-[2-((4-fluorophenoxy)methyl)-5-phenyloxazol-4-yl]benzenesulfonamide;
- 35 4-[2-((4-carboxyphenoxy)methyl)-5-phenyloxazol-4-yl]benzenesulfonamide;

4-[2-(2-phenethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(3-phenpropyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
5 4-[2-(carboxymethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(ethoxycarbonylmethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-(methoxycarbonylmethyl)-5-phenyloxazol-4-
10 yl]benzenesulfonamide;
4-[2-(2-quinolyloxymethyl)-5-phenyloxazol-4-
yl]benzenesulfonamide;
4-[2-benzyl-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-benzyl-4-(4-fluorophenyl)oxazol-5-
15 yl]benzenesulfonamide;
4-[2-benzyl-4-(3,4-difluorophenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(4-chlorophenyl)oxazol-5-
yl]benzenesulfonamide;
20 4-[2-benzyl-4-(3,4-dichlorophenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(4-methoxyphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(3,4-dimethoxyphenyl)oxazol-5-
25 yl]benzenesulfonamide;
4-[2-benzyl-4-(4-methylphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(3,4-dimethylphenyl)oxazol-5-
yl]benzenesulfonamide;
30 4-[2-benzyl-4-(3-chloro-4-methylphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(4-chloro-3-methylphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(3-chloro-4-methoxyphenyl)oxazol-5-
35 yl]benzenesulfonamide;
4-[2-benzyl-4-(4-chloro-3-methoxyphenyl)oxazol-5-
yl]benzenesulfonamide;

- 4-[2-benzyl-4-(3,5-dichloro-4-methoxyphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(3-fluoro-4-methylphenyl)oxazol-5-
yl]benzenesulfonamide;
5 4-[2-benzyl-4-(4-fluoro-3-methylphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(3-fluoro-4-methoxyphenyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(2-thienyl)oxazol-5-
10 yl]benzenesulfonamide;
4-[2-benzyl-4-(5-chloro-2-thienyl)oxazol-5-
yl]benzenesulfonamide;
4-[2-benzyl-4-(cyclohexyl)oxazol-5-
yl]benzenesulfonamide;
15 4-[2-benzyl-4-(1-cyclohexenyl)oxazol-5-
yl]benzenesulfonamide;
2-benzyl-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,4-
difluorophenyl)oxazole;
20 2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-
chlorophenyl)oxazol-4-yl]benzenesulfonamide;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,4-
dichlorophenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-
25 methoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,4-
dimethoxyphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-
methylphenyl)oxazole;
30 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,4-
dimethylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-chloro-4-
methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-chloro-3-
35 methylphenyl)oxazole;
2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-chloro-4-
methoxyphenyl)oxazole;

- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-chloro-3-methoxyphenyl)oxazole;
- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3,5-dichloro-4-methoxyphenyl)oxazole;
- 5 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-fluoro-4-methylphenyl)oxazole;
- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(4-fluoro-3-methylphenyl)oxazole;
- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(3-fluoro-4-methoxyphenyl)oxazole;
- 10 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-thienyl)oxazole;
- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(5-chloro-2-thienyl)oxazole;
- 15 2-benzyl-5-(4-methylsulfonylphenyl)-4-(cyclohexyl)oxazole;
- 2-benzyl-5-(4-methylsulfonylphenyl)-4-(2-cyclohexenyl)oxazole;
- 2-(ethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 20 2-(trifluoromethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 2-(difluoromethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 2-(hydroxymethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 25 2-(carboxy)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 2-(methoxycarbonyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 30 2-(ethoxycarbonyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 2-(propyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 2-(benzyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
- 2-(phenoxyethyl)-5-(4-methylsulfonylphenyl)-4-
- 35 phenyloxazole;
- 2-((4-chlorophenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;

- 2-((4-fluorophenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-((4-carboxyphenoxy)methyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
5 2-(2-phenethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(3-phenpropyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(carboxymethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
10 2-(ethoxycarbonylmethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(methoxycarbonylmethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
2-(2-quinolylloxymethyl)-5-(4-methylsulfonylphenyl)-4-phenyloxazole;
15 4-[2-(ethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(trifluoromethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
20 4-[2-(difluoromethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(hydroxymethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(carboxy)-4-phenyloxazol-5-yl]benzenesulfonamide;
25 4-[2-(methoxycarbonyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(ethoxycarbonyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(propyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
30 4-[2-(benzyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-(phenoxyethyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
4-[2-((4-chlorophenoxy)methyl)-4-phenyloxazol-5-yl]benzenesulfonamide;
35 4-[2-((4-fluorophenoxy)methyl)-4-phenyloxazol-5-yl]benzenesulfonamide;

- 4-[2-((4-carboxyphenoxy)methyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(2-phenethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
5 4-[2-(3-phenpropyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(carboxymethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(ethoxycarbonylmethyl)-4-phenyloxazol-5-
10 yl]benzenesulfonamide;
4-[2-(methoxycarbonylmethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
4-[2-(2-quinolylloxymethyl)-4-phenyloxazol-5-
yl]benzenesulfonamide;
15 5-(4-fluorophenyl)-2-methyl-4-[4-
(methylsulfonyl)phenyl]oxazole;
3-[5-(4-fluorophenyl)-4-[4-(methylsulfonyl)phenyl]
oxazol-2-yl]propanoic acid;
methyl 3-[5-(4-fluorophenyl)-4-[4-(methylsulfonyl)
20 phenyl]oxazol-2-yl]propanate;
4-(4-fluorophenyl)-2-(2-phenyl)ethyl-5-(4-
(methylsulfonyl)phenyl)oxazole;
4-(4-fluorophenyl)-2-methyl-5-[4-
(methylsulfonylphenyl)oxazole;
25 4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]-2-
phenyloxazole;
2-benzyl-4-(4-fluorophenyl)-5-(4-
(methylsulfonyl)phenyl)oxazole;
4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]-2-(3-
30 phenyl)propyloxazole;
4-(4-fluorophenyl)-5-[4-methylsulfonylphenyl]-2-
propyloxazole;
2-(tert-butyl)-4-(4-fluorophenyl)-5-[4-
methylsulfonylphenyl]oxazole;
35 4-(4-fluorophenyl)-2-(4-methoxyphenyl)methyl-5-[4-
methylsulfonylphenyl]oxazole

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